AUTHOR INDEX

A

Aas, M., 357
Abadom, P. N., 1046
Abala, A., 390, 391
Abdulla, Y. H., 381, 385, 746
Abe, K., 743, 744, 745
Abeles, R. H., 675
Abelson, J., 927, 1048, 1057
Abragam, A., 607
Abraham, E. P., 460, 461
Abraham, G., 366
Acher, A. J., 66
Acheson, G. H., 467
Acheson, N. H., 51
Acheson, R. M., 588
Achs, M. J., 251
Ackerman, E., 581
Ackermann, P. G., 574
Ackermann, T., 1015
Ackers, G. K., 655, 657, 666, 667
Acs, G., 1052, 1062
Ada, G. L., 970
Adam, G., 251
Adams, A., 1051
Adams, C. W. M., 381, 385, 642
Adams, E. T., 656
Adams, G. H. M., 293, 295
Adams, J. M., 402, 404, 411, 417, 418
Adams, M. J., 683, 684, 1020, 1035, 1036, 1037, 1038
Adams, R. M., 535
Adams, T. H., 518, 525, 526
Adams, W. R., 99
Adams, W. S., 812
Adamson, L. F., 764
Adamson, R. H., 796
Adamson, S. D., 420
Addanki, S., 142
Adelberg, E. A., 910, 911, 920
Adelman, M. R., 642
Adhya, S., 889
Adiga, P. R., 453
Adler, A. J., 273, 300, 302, 1053
Adler, H. I., 921
Adler, H. J., 580, 586
Adler, J., 542, 837
Admiraal, J., 1036
Adolph, K., 411, 1063
Afting, E.-G., 366
Agarwal, K. L., 869
Agarwal, M. K., 1054
Agarwal, R. P., 610
Ahlfors, C. E., 669, 757
Ahluwalia, B., 565
Ahmed, S. I., 945, 948
Ahrén, K., 764
Aida, K., 455
Aida, T., 456
Akanuma, Y., 273
Akesson, A., 1031, 1032
Akinrimisi, E. O., 298
Akita, T., 61
Alberici, M., 743, 746, 747
Albers, W., 479
Albertini, A., 455, 457
Alberts, A. W., 659, 662, 663, 688
Alberts, B. M., 879, 880, 929
Alberty, R. A., 318
Albracht, S. P. J., 123
Albrecht, I., 857
Aldridge, W. N., 130, 145, 325
Alertsen, A. R., 815
Alescio-Zonta, L., 1005
Alexander, C., 1005
Alexander, M., 1035
Alexander, P., 574
Alexander, R. L. Jr., 592
Alexander, R. R., 956, 963
Alexandre, A., 146
Alfsen, A., 1058
Algeri, S., 483
Aliapoulis, M. A., 273
Aliev, K. A., 1047
Alifano, A., 148
Alikhanian, S. I., 722, 723
Al-Khalidi, U., 815
Al-Khalidi, U. A. S., 821
Allen, E. F., 857
Allen, J. R., 117
Allen, R. L., 177, 185
Allende, C. C., 1058, 1060, 1061
Allende, J. E., 414, 425, 426, 432, 1057, 1060, 1061
Allerhand, A., 609
Allfrey, V. G., 285, 290, 291, 292, 293, 294, 296, 302, 306, 365, 753, 1047
Allison, W. S., 1036
Alousi, A., 488
Alpers, H. S., 481, 482
Altman, P. L., 820, 822
Altman, S., 877. 883, 926
Alton, Sister M., 581
Altwerger, L., 1052, 1062
Alvino, C. G., 1048
Alvord, E. C. Jr., 636, 638
Amador, E., 576, 581
Amann, H., 218
Amante, E., 538
Amante, L., 1001, 1005
Ambrose, J. A., 582
Amenta, J. S., 582
Ames, B. N., 956, 960, 962, 963, 965, 1058, 1062
Ames, E., 433, 434
Amesz, J., 215, 238
Aminoff, D., 41
Ammeraal, R. N., 200
Ammon, U., 583
Amodio, F. J., 879
Amoore, J. E., 542, 544
Anagnoste, B., 470
Anah, C. O., 475, 491, 580
Anai, M., 859, 878
Anand, S. R., 863
Andén, N.-E., 467, 469
Anders, M., 719
Andersen, F. A., 1057
Andersen, W. R., 190
Anderson, B. M., 108, 668
Anderson, C. D., 108, 668
Anderson, D. L., 884, 925
Anderson, E. S., 913, 921
Anderson, I. C., 189
Anderson, J., 119
Anderson, J. A., 584
Anderson, J. M., 178
Anderson, J. S., 414
Anderson, J. W., 638
Anderson, M. B., 1047
Anderson, N. G., 585
Anderson, O. R., 509
Anderson, P. J., 379, 381, 382, 478
Anderson, P. M., 664
Anderson, R. L., 73
Anderson, S. R., 92, 105, 331
Anderson, W. A., 385, 391, 621, 743
Anderson, W. A. Jr., 743, 745, 763
Anderson, W. B., 358, 360
Anderson, W. F., 423, 424, 1059
Anderson, W. M., 681
Andersson, B., 262, 275
Ando, K., 1029, 1031
Ando, S., 63

Ando, T., 280, 281, 297, 582, 876, 1064
Andreae, U., 73
Andrew, E. D., 814, 816
Andrews, H., 49, 63, 64, 75
Anfinsen, C. B., 259-78; 259, 260, 262, 265, 266, 267, 268, 270, 271, 272, 273, 339, 674, 951, 1018, 1032, 1033, 1034, 1035
Angeletti, P. U., 645, 646, 647
Angeletti, R. A. H., 646
Angeletti, R. H., 646
Anker, H. S., 960
Anraku, N., 879
Anraku, Y., 875
Ansevin, A. T., 304, 305
Anthony, D. D., 718, 719, 721, 728
Anthony, W. L., 552
Antonini, E., 227, 228, 336, 339, 619, 666, 680, 681, 685, 1015, 1023, 1025
Aoki, I., 1058
Aparicio, P. J., 365
Apirion, D., 1047
Aplin, R. T., 537, 541
Aposhian, H. V., 859, 863, 866, 871
Appel, W., 218
Appella, E., 1005
Appleby, M., 335
Appledorf, H., 562
Appleman, M. M., 746, 747, 748, 749, 758
Appleton, M. D., 821
Araki, S., 878
Arav, R., 297
Arber, W., 301, 847, 882, 911
Arca, M., 1059
Arcamone, F., 789
Arceneaux, J. L., 1047
Archer, E. G., 399
Arditti, R. R., 730
Ardonina, T. A., 1056
Argaman, M., 800
Arglebe, C., 191
Argy, W. P. Jr., 763
Arioli, V., 798
Arion, W. J., 120
Arlinghaus, R., 432
Armentrout, R. W., 400
Armstrong, D. J., 1049
Armstrong, J., 400
Armstrong, J. J., 180
Armstrong, K., 353
Armstrong, M. D., 293, 475
Armstrong, R. J., 189
Armstrong, W. D., 576
Arn, H., 536
Arndt, D. J., 1023, 1058
Arnold, A., 743, 744
Arnold, D. E., 580
Arnold, H., 672
Arnold, J. T., 621
Arnold, W., 163
Arnon, D. I., 198, 199, 200, 202, 208, 209, 214, 217
Arnon, R., 74, 101, 638
Arnone, A., 620, 683, 1032, 1033, 1035
Arnott, S., 1063
Arnstein, H. R. V., 460
Arntzen, C. J., 164, 165, 166, 172, 178, 179
Aronson, A. I., 404
Arqueros, L., 473, 481, 483, 484, 489, 490
Arsenis, C., 260, 265
Arstila, A. U., 390
Artz, S. W., 268, 269, 274
Asai, H., 659
Asai, J., 116, 144
Asakura, T., 233, 234
Asami, K., 131
Asano, T., 514
Asatoor, A. M., 293
Ascarelli, I., 502, 503
Aschoff, J., 237
Ascoli, F., 779
Ashburner, M., 1097
Ashby, D. R., 513
Ashby, T. M., 581
Ashman, D. F., 750
Ashmore, J., 758, 814
Ashton, D. M., 814, 815, 816, 818, 819
Ashworth, J. M., 764
Assaf, S. A., 348
Assicot, M., 478
Assmann, G., 67, 68
Astaurova, O. B., 721
Astrin, K. H., 1005
Aszalos, A., 450, 791
Aten, J. B. T., 901, 904
Athouel-Haon, A. M., 44
Atkin, N. B., 1000
Atkinson, D. E., 128, 756, 819, 944, 1062
Atkinson, M. R., 674, 811, 812, 816, 856, 859, 861, 863, 865
Attali, J. C., 754
Attardi, D. A., 646
Attardi, G., 998
Atwood, K., 998
Atzpodien, W., 366
Au, W. Y. W., 522
Aub, J. C., 1, 3
Aubert, J. P., 404, 405
August, J. T., 795, 796
Aune, K. C., 673
Aungst, C. W., 581
Aurbach, G. D., 743, 744, 745, 748, 749, 750
Auricchio, F., 366
Aurich, H., 248
Austin, C. M., 970
Austin, L., 473
Austin, S., 723
Austin, W. H., 592
Autilo, L. A., 636, 637
Avers, C. J., 917
Avery, J., 84
Avila, J., 716
Avioli, L. V., 513, 514, 515, 519
Aviram, I., 1031, 1032
Avital, S., 1046
Avrameas, S., 391, 392, 970
Avron, M., 136, 198, 199, 200, 202, 203, 209, 214, 215, 220
Avrova, N. F., 65
Awadallah, R., 578
Awapara, J., 471
Awasthi, Y. C., 123
Ax, H. A., 1081
Axelrod, J., 465-500; 466, 467, 472, 473, 474, 475, 477, 478, 479, 480, 481, 482, 483, 484, 485, 487, 489, 490, 491, 492
Axelrod, V. D., 1054, 1056, 1059
Axén, R., 260, 1018
Ayers, J., 84
Ayvazian, J. H., 812, 815
Ayyar, K. S., 1081, 1085
Azzi, A., 130, 137, 138, 149, 150, 244, 1032
Azzone, G. F., 244

B

Baba, W. I., 763
Babala, J., 552
Babcock, J. C., 515
Babinet, C., 713, 722, 723, 724, 799
Babson, A. L., 580
Baccarini-Melandri, A., 132
Bach, M., 402
Bachhawat, B. K., 508
Bachmann, M. D., 189
Bachofen, R., 202
Backer, J. M., 1053
Backhouse, J., 513
Bäckström, D., 124
Baczko, K., 976
Baczynskyj, L., 1049
Baddiley, J., 32
Badgewick, R. J., 592
Badley, R. A., 97, 99, 102
Baer, J. E., 467
Baer, R. A., 584
Baev, A. A., 1048, 1054, 1056, 1059
Bagdasar'yan, Kh. S., 89
Baggott, J. P., 686
Baglioni, C., 420, 986, 1005
Baguley, B. C., 1048,

1050, 1051
Bahn, B. A., 647, 648
Bailey, J. L., 175, 176, 177, 219
Baird, C. E., 743, 744, 745, 759
Bak, B., 611, 613
Bakay, B., 593
Bakeeva, L. E., 135, 142
Baker, B. L., 392
Baker, R. A., 723
Bakes, J., 1055
Bakhaeva, G., 787
Bakke, O. M., 478
Balcarová, Z., 782
Balcavage, W. X., 138
Baldassare, J. J., 230, 231, 232
Baldeschwieler, J. D., 625, 626
Baldwin, R. L., 901, 910
Baldy, M. W., 863
Baliga, B. S., 1048, 1056
Balin, A. K., 583
Balis, M. E., 813, 814, 815, 816, 817
Balko, B., 317
Ball, E. G., 117, 145, 146, 759, 1031
Baller, J., 1056
Ballieux, R. E., 970
Ballotta, R., 798
Ballou, C. E., 39, 40
Balls, A. K., 1028
Ballschmiter, K., 178
Balough, K. Jr., 520
Baltimore, D., 868, 951
Baltscheffsky, H., 136
Baluda, M. A., 52
Bamburg, J. R., 33, 34
Bamford, C. H., 614
Banaschak, H., 813
Banaszak, L. J., 683
Banerjee, S. K., 1014, 1020, 1021, 1022
Bangerter, B. W., 609, 610
Bangham, A. D., 509
Banks, B. E. C., 327, 338, 646
Banks, P., 483, 484
Bannister, T. T., 84, 107, 247
Bar, A., 518, 519, 525
Bär, H. P., 743, 744, 745, 750, 754, 759
Barash, F., 732, 733
Barber, E. D., 334, 687
Barbieri, P., 790
Barbour, S. D., 878
Barchas, J. D., 470, 474
Barchas, R. E., 474
Barclay, M., 58
Bard, J. R., 667
Bareiss, R., 656
Barenholz, Y., 58, 67, 71
Barger, G., 466
Baril, E. F., 563
Barka, T., 381, 382
Barker, D. C., 523, 664
Barker, M. D., 121
Barker, S. A., 400
Barkley, D. S., 539, 540, 542, 764
Barlow, G. H., 140, 1032
Barman, T. E., 324, 325
Barnard, A. J., 575
Barnard, E. A., 820
Barnes, W. F., 578
Barnett, G. O., 584
Barnett, L., 435
Barnett, W. E., 1047, 1059
Barnum, C. P., 787, 790
Baron, D. N., 578
Baron, L. S., 905, 910, 911, 914, 924
Baron, S., 425
Barondes, S., 644
Barondes, S. H., 467, 485
Barrand, P., 901, 910
Barrell, B. G., 417, 418, 1048, 1055, 1063
Barreto, A., 614
Barrett, A. J., 508
Barrett, K., 713, 724, 725
Barrett, M. D., 679
Barrnett, R. J., 378, 379, 383, 384, 390
Barsky, J., 477
Bartell, P. F., 33
Bartelstone, H. J., 743, 745
Barth, P. T., 924, 927
Barth, R. H. Jr., 1095
Bartl, P., 888, 901
Bartlett, G. R., 820
Bartley, J. A., 299, 300, 302
Barton, E. C., 584
Barton, G. W., 608
Bartos, H. R., 593
Bartter, F. C., 489, 522
Barzel, U. S., 552, 554
Barzilai, R., 887
Baschang, G., 59
Baseman, J. B., 433, 434
Baskid, G., 796
Bass, A. D., 764
Bassel, A., 919
Bastiz, D., 798
Bastide, F., 364
Basu, M., 68
Basu, S., 49, 50, 68, 69, 70
Batcho, A. D., 796
Bateman, J. R., 803
Batt, C. W., 1026
Batt, E. R., 520
Battaner, E., 432, 433
Battfay, O., 1029, 1030
Battig, F., 358, 360
Baudhuin, P., 119, 377
Bauer, B., 593
Bauer, H., 715
Bauer, J. D., 574
Bauer, W., 880, 901, 903, 904, 906, 914, 917, 919
Bauerle, R. H., 947, 948
Bauer-Stib, G., 192
Baum, G., 579
Baum, H., 125, 144
Baumann, C. A., 569
Baumann, G., 1096
Baumberger, S., 970
Baumgarten, D., 901, 902, 903
Bautz, E. K. F., 273, 410, 645, 712, 713, 714, 715, 717, 721, 724, 725, 726, 728, 729, 732, 734, 799, 839
Bautz, F. A., 713, 715, 717, 721, 725, 726, 728, 734, 799, 839
Bawn, C. E. H., 614
Baxter, R., 187
Bayley, S. T., 1060
Bayliss, O. B., 381, 385, 642
Bazaral, M., 901, 904, 906, 909, 911, 912, 922, 928, 932, 933
Beard, M. E., 390
Beardsley, K., 1052
Bearn, A. G., 72
Beatty, B. R., 916
Beaud, G., 428
Beaudet, A. L., 440
Beaudreau, C., 346, 356
Beaudreau, G. S., 1048
Beaufay, H., 382
Beaven, M. A., 484, 485
Beaven, V., 457, 461
Beaver, D. L., 383
Becak, W., 1000
Becarevic, A., 413, 415, 1046
Bechet, J., 944
Beck, C. S., 641, 642
Beck, F., 382, 390
Beck, J. R., 800
Beck, N. P., 743, 744
Beck, W. S., 814
Becker, A., 901
Becker, B. A., 553
Becker, E. D., 607
Becker, F. F., 743, 745
Becker, Y., 420, 800
Beckering, R. E. Jr., 582
Beckett, A. H., 580
Beckman, J., 581
Beckmann, R., 536
Beckwith, J. R., 346, 435, 712, 730, 752, 765, 844, 964, 1057
Bedard, W. D., 544, 545
Bedell, B. H., 117
Bednar, T. W., 90
Beecham, A. F., 612
Beechey, R. B., 121, 131
Beeler, M. F., 577
Beeman, W. W., 1063, 1064

Beeson, J., 1057
Beevers, H., 384
Befort, N., 1055, 1059
Beguin, F., 725
Behme, M., 878
Behr, W., 785, 788, 789, 796
Behrendt, H., 594
Behrens, N. H., 40, 71
Behrens, O. K., 460
Beinert, H., 122, 123, 126, 127, 207
Bekhor, I., 304
Bekker, Zh. M., 611, 1053, 1054
Bélanger, L. F., 384
Belfield, A., 581
Belikova, A. M., 1055
Bell, C. L., 779
Bell, F. E., 1058, 1060
Bell, N. J., 513, 514
Bell, P. A., 514
Bell, R. P., 339
Bell, W. D., 189
Bell, W. J., 1095
Bellas, T. E., 540
Belleau, B., 478
Beller, R. J., 416
Belocopitow, E., 353
Belousov, B. P., 250
Belozerskii, A. N., 1047
Belpaire, F., 469, 471, 473, 487
Benacerraf, B., 970
Bencina, B., 638, 639
Bencini, M., 520
Benda, P., 647
Bendall, D. S., 208, 209
Bender, M. L., 324, 1026, 1028
Bendicenti, A., 561
Benedict, A. A., 976
Benesch, R., 231, 232, 675, 680, 1026
Benesch, R. E., 231, 232, 675, 680, 1026
Ben-Hayyim, G., 200, 220
Benke, P., 817
Benkovic, S., 1029
Bennett, C. D., 558
Bennett, D. A. H., 553
Bennett, G., 44
Bennett, G. S., 648
Bennett, J. C., 979, 985, 1006
Bennett, L. L., 816, 818, 819
Bennett, L. R., 798
Bennett, N. G., 325
Bennett, R., 666
Bennett, R. G., 86, 87, 88
Bennett, T. P., 1058
Bennich, H., 1005
Bennington, J. L., 574
Ben-Porat, T., 52
Bensch, K., 378, 379
Bensch, K. G., 644
Benson, A. A., 163, 166, 167, 172, 177
Benson, E. S., 588
Benson, J. D., 519
Benton, A. W., 535, 538, 543
Berberich, M. A., 954
Berden, J. A., 124, 125, 126, 134, 150
Berends, W., 141
Berenson, G. S., 43
Berg, A., 901, 910
Berg, C. M., 891
Berg, D., 713, 715, 719, 720, 724, 725
Berg, H., 779
Berg, P., 411, 721, 803, 901, 915, 1057, 1058, 1060, 1061
Berg, T. L., 453
Bergan, J. G., 560
Berger, A., 95, 266, 400, 401
Berger, H., 876, 884, 885
Berger, H. Jr., 885, 886
Berger, R. L., 317, 318
Berger, R. S., 536
Berger, S., 190
Bergman, R. A., 381, 383, 389
Bergmann, E. D., 540
Bergmann, F. H., 411
Bergquist, P. L., 1056
Bergstrom, S., 763
Beridze, T. G., 187
Berk, B., 791
Berkoff, C. E., 1081, 1083, 1084, 1085, 1088, 1090, 1092, 1095
Berland, T., 569
Berlin, C. M., 366
Berlin, R. D., 815, 820, 821
Berlin, Y. U. A., 787
Berlowitz, L., 281, 307
Berlyn, M. B., 945
Berman, P. H., 813, 814, 816, 817
Bermingham, M. A. C., 460
Bernard, J., 789
Bernard, R. A., 504, 505
Bernardi, A., 1056
Bernardi, G., 878
Berndt, W. O., 814, 816
Berneis, K. H., 482
Bernfield, M. R., 266, 1047, 1062
Bernhard, K., 62
Bernhard, S. A., 324, 329, 330, 333, 678, 686
Bernhard, W., 381
Bernhardt, D., 1064
Bernhardt, W., 248
Bernhart, F. W., 560, 564, 568
Bernier, G. M., 970
Bernlohr, R. W., 404, 452, 456
Bernstein, E., 522
Bernstein, H. J., 607
Bernstein, R. S., 92, 93
Beroza, M., 536, 542, 543
Berra, B., 72
Berridge, B. J. Jr., 586
Berridge, N. J., 456
Berry, S. A., 1060
Berst, M., 31
Bertani, L. E., 840
Berthet, J., 742, 754, 755
Berthet, L., 760
Bertina, R. M., 129
Bertland, L. H., 109
Bertler, A., 466
Bertole, M. L., 201
Bertsch, L. L., 674, 857, 863, 864, 865, 866, 871
Berzborn, R., 203, 204
Berzborn, R. J., 201
Besen, M., 383
Bessman, M. J., 863, 864, 865
Bessman, S. P., 139
Bethell, M. R., 673
Bethune, J. L., 655, 657
Betz, A., 238, 240, 242, 247, 248
Beutler, E., 594
Bevan, C. W. L., 538
Bevan, K., 459
Beveridge, G. C., 638
Bewsher, P. D., 758
Beyer, R. E., 144
Beyersmann, D., 863
Bhacca, N. S., 611
Bhaduri, S., 423
Bhagavan, H. N., 217
Bhagavan, N., 453, 457
Bhattacharyya, P., 452
Bhattacharyya, R. N., 346, 356
Bhatti, T., 583
Bhuyan, B. K., 789, 790, 791
Biberfeld, P., 379
Bibring, T., 750
Bick, M. D., 1047
Bide, R. W., 578
Bieber, L. L., 61
Bieck, P., 743
Biedermann, W., 92, 94
Biemann, K., 535, 536, 794, 1049
Biempica, L., 390, 391
Bieri, J. G., 504, 506
Bierl, B. A., 536
Biezunski, N., 1050
Biggins, J., 163, 199
Biggs, H. G., 581
Bigler, W. N., 1062
Billeter, M. A., 417
Billheimer, F. E., 890, 915, 917
Biltonen, R., 1020

Binaghi, R. A., 1005
Binczek, E., 67
Bindstein, E., 352, 354
Birch, A. J., 457, 538, 1085
Birch, M. C., 537, 541
Bird, H. R., 569
Bird, R., 886, 888, 930
Birk, Y., 404, 562, 563
Birkofer, L., 290, 292
Birktoft, J. J., 1026, 1027, 1028
Birnbaum, H., 553
Birnbaumer, L., 353, 743, 744, 745, 746, 749, 758, 759
Birnstiel, M. L., 187, 188, 998
Bisalputra, A. A., 189
Bisalputra, T., 189
Bisaz, S., 317
Biserte, G., 281, 283, 295
Bishop, C., 722, 813
Bishop, J. M., 868
Bishop, J. O., 420
Bishop, J. S., 346, 348, 352, 354, 355
Bishop, N. I., 197-226; 207, 209, 211, 214, 215, 216
Biskup, M., 1084, 1088
Bister, F., 39
Bitensky, M. W., 743, 745, 746
Bitter, R. A., 558
Bittman, R., 242, 332, 338, 686, 1052
Bjerke, J. S., 535, 536, 1081, 1082, 1088, 1094, 1095
Björk, G. R., 1050
Björling, M., 486
Björndal, H., 60
Bjurulf, C., 1015
Black, C. C., 199, 202, 203
Black, I. B., 492
Black, P. H., 49, 902, 914
Blackburn, T. H., 404
Blackwell, R. Q., 593
Blair, D., 912
Blair, D. G., 881, 901, 907, 908, 917
Blake, A., 1052
Blake, C. C. F., 326, 1015, 1020, 1021, 1022
Blake, R. D., 1062, 1063
Blanchaer, M. C., 117
Bland, J. H., 816
Blaschko, H., 467, 471, 475, 478, 481
Blatt, J. M., 956
Blatt, W. F., 578
Blatti, S. P., 716
Blecher, M., 743, 745, 746, 748, 759
Bleicher, S. J., 759
Blethen, S., 623
Blew, D., 1046
Bleyman, M., 778, 800
Bloch, K. J., 64
Block, D. P., 866
Bloembergen, N., 622
Bloemendal, H., 672
Bloemers, H. P. J., 961, 1058
Blomfield, J., 593
Blondin, G. A., 140
Bloom, F. E., 467, 482, 483
Bloom, G., 743, 745
Bloomfield, V. A., 904
Blough, H. A., 75
Blout, E. R., 88
Blow, D. M., 682, 683, 1013, 1018, 1026, 1027, 1028, 1029
Blum, H. E. C., 581
Blum, M. S., 538, 543, 544
Blumberg, S., 266, 268
Blunt, J. W., 512, 515, 516, 522
Boardman, N. K., 161, 178, 183, 198, 199, 202, 206, 208, 209, 210, 211, 212
Boaro, A. V., 560
Bobrowich, V. P., 98
Bocchini, V., 645, 646
Boch, R., 535, 538, 539, 543, 545
Böck, A., 1058
Bock, R. M., 411, 954, 1055, 1062
Bockman, D. F., 970
Bodansky, O., 821
Bodanszky, M., 449-64; 402, 404, 450, 451, 456, 461
Bode, H. R., 909
Bode, V. C., 249, 902, 910
Bodenstein, D., 1083, 1095, 1096
Bodley, J. W., 431, 453
Boeckh, J., 542, 544
Boedtker, H., 419
Boeker, E. A., 664
Boerjesson, B., 578
Bogdanski, D., 471, 480
Boger, P., 206
Boggust, W. A., 673
Bogin, E., 132
Bogorad, L., 187, 188
Bohàček, J., 782
Bohman, S.-O., 379
Böhme, E., 751
Böhme, G., 118
Bohnensack, R., 118
Bohnert, E., 362
Bohuon, C., 478
Boiron, M., 789
Bois, R., 123, 124
Boissonnas, R. A., 473, 1058
Boiteux, A., 237-58; 239, 240, 241, 242, 243, 244, 245, 246, 247, 248
Boler, J., 402
Boll, M., 365
Bollack, C., 1054, 1055
Bolle, A., 435, 440
Bollum, F. J., 864, 865, 866, 868, 869
Boloukhere, M., 107
Bolton, E. T., 400
Bolton, F. G., 583
Bolton, W., 675, 680, 1023, 1025
Bolund, L., 780
Boman, H. G., 963
Boman, I. A., 963
Bomford, R. R., 574
Bondi, A., 502, 503
Bondy, S. C., 291
Bonhoeffer, F., 856, 872, 890, 891, 925, 928, 931
Bonhoeffer, K. F., 238
Bonner, J., 279, 280, 281, 282, 283, 284, 285, 286, 288, 289, 290, 291, 292, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 365
Bonner, J. T., 539, 540, 542, 764
Bonner, W. D., 210, 213
Bonnet, J., 1047
Bonney, R., 1050
Bono, V. H., 796, 797
Bonsignore, A., 367
Borden, J. H., 1097
Borders, D. B., 800
Bordier, P., 522
Borek, C., 50, 75
Borek, E., 834, 1045, 1048, 1050, 1054
Borgers, M., 382, 390
Borin, G., 1017
Borisova, O., 1052
Borisy, G. G., 486, 642, 643, 644
Borst, P., 116, 117, 118, 729, 902, 903, 904, 914, 916, 917, 918, 919, 923
Borun, T. W., 295, 303
Bose, K. K., 423
Bose, S. K., 452
Bosmann, H. B., 48
Bossert, W. H., 534, 535, 538, 541
Bosshard, H. R., 579
Botchan, M., 279, 304, 915
Bothner-By, A. A., 625
Botstein, D., 883, 888, 930
Bottomley, S. S., 743, 745, 753
Bouanchaud, D., 913, 922, 931
Boublik, M., 300, 301, 620
Bouchilloux, S., 44
Bouda, J., 578

Boukma, S. J., 473
Boulanger, P. A., 281
Boullin, D. J., 487
Bouquet, M., 841
Bourgaux, P., 890, 915, 930
Bourgaux-Ramoisy, D., 890, 915, 930
Bourgeois, S., 838
Bourgois, A., 981
Bourguet, J., 743, 745, 763
Bourguignon, M.-F., 841
Bourne, G. H., 383, 390, 749
Bourne, H., 743, 745
Bouteille, M., 391
Bovey, F. A., 607, 613
Bovina, C., 552
Bowen, C. C., 189
Bowen, D. M., 71
Bowen, E. J., 90
Bowers, B., 40
Bowers, C. Y., 402
Bowers, G. N., 578
Bowers, W. F., 656, 664
Bowers, W. S., 1080, 1081, 1082, 1083, 1084, 1085, 1087, 1088, 1091, 1092, 1094, 1095
Bowes, J. H., 378, 379
Bowman, F., 562
Boyce, D. W., 526
Boyce, R. P., 841, 883
Boyd, G. S., 761
Boyd, R. F., 1059
Boyer, P. D., 116, 129, 133, 328
Boyette, M., 1081, 1085, 1088, 1095
Boyland, E., 552
Boyle, J. A., 584, 816, 817
Boyle, J. M., 870
Boyme, T., 763
Boynton, J. E., 189
Bozzi, G., 1005
Brachet, J., 187
Brachet, P., 832, 833, 841
Brackett, J. W., 580
Bradbury, E. M., 300, 301, 302, 613, 614, 620
Bradbury, J. H., 613, 615, 617
Bradbury, W. C., 1019
Bradford, M. J., 815
Bradford, N. M., 119
Bradham, L. W., 749
Bradley, K. H., 580, 593
Bradley, R. M., 50, 71, 73, 75
Bradner, W. T., 791
Bradshaw, R. A., 646
Brady, R. N., 66, 67
Brady, R. O., 50, 66, 71, 72, 73, 74, 75, 593
Brady, T. G., 673, 821
Brahmi, Z., 970
Braken, G. K., 1095
Brammer, J. D., 504
Braná, H., 743, 746, 747
Brand, B., 538
Brand, E., 15
Brand, J. J., 216, 217
Brand, J. S., 521
Brand, K., 238, 240, 242
Brand, L., 86, 89, 90, 91, 92, 93, 94, 96, 102, 105
Branden, C. I., 328, 683
Brandt, K. G., 1028, 1031, 1032
Brandts, J. F., 1015
Branton, D., 161, 163, 164, 165, 171, 172, 173
Bratvold, G. E., 346, 350, 365, 748, 756
Braun, B. H., 1085, 1088
Braun, D. G., 976
Braun, P. E., 66, 67
Braun, T., 563, 745, 759, 761, 762
Braun, V., 37, 38, 39
Bravo, A., 554
Brawerman, G., 187, 413, 415, 421
Braxton, H., 1026
Bray, G. A., 759
Bray, W. C., 238, 250
Brazier, D. M., 1005
Breckenridge, B. McL., 748, 749
Bredderman, P. J., 523
Bredesen, J. E., 454
Breen, D. E., 88
Breese, G. R., 485
Brega, A., 885
Breidenbach, R. W., 384
Bremer, H., 714, 723, 724, 726, 732, 860, 863
Brenneman, A. R., 469
Brenner, M., 452, 455, 963, 965, 1062
Brenner, S., 435, 921, 924, 925, 926, 931, 932, 987
Brenowitz, J., 419
Bretscher, M. S., 414, 436, 1056
Bretthauer, R. K., 40
Brettschneiderová, Z., 1085
Breuer, H., 478
Brewer, H. B. Jr., 743, 745
Breymaert, M.-D., 283, 295
Bricas, E., 451
Bridgers, W. F., 467
Bridges, C. B., 998
Briehl, R. W., 681, 682, 1026
Brierley, G. P., 140, 245
Briggs, G. M., 549-72; 550, 553, 559, 560, 568
Bright, H. J., 334, 335, 687
Briles, D., 273
Brill, A. S., 607, 610
Brillet, S., 136
Brimijoin, W. S., 472, 474, 489, 490, 491
Brin, M., 814
Brindley, T. A., 536
Britten, R. J., 998
Broadus, A. E., 580
Brocklehurst, J. R., 149, 150
Brockman, R. W., 819
Brockmann, W., 583
Broda, P., 731
Brodie, A. F., 132
Brodie, B. B., 471, 480, 484, 485, 487, 749, 759, 761
Brodman, K., 584
Brody, B. B., 590
Bromberg, P. A., 812, 820
Bromstrup, K., 870, 887, 927
Brooker, G., 746, 748, 749
Brookes, V. J., 1095
Brookman, K., 739
Brooks, E., 130
Brooks, J., 185
Brooks, K., 834
Brooks, S. H., 587
Broom, A. D., 609
Broser, W., 92, 94
Brosious, E., 576
Brostoff, S. W., 1054
Brostrom, C. O., 351
Brot, N., 431
Broughton, P. M. G., 584
Brower, J. V. Z., 534
Browler, L. P., 534, 536
Brown, A., 1020
Brown, A. L. Jr., 553
Brown, B. I., 593
Brown, D. D., 729, 998, 1064
Brown, D. M., 668, 688, 1056
Brown, E., 743, 745, 763
Brown, E. H., 1047
Brown, G. B., 821
Brown, G. L., 1054
Brown, G. M., 1051
Brown, H., 551
Brown, H. D., 593, 1015
Brown, J. C., 415, 422, 1047
Brown, J. H. U., 483
Brown, J. L., 402
Brown, J. R., 1026
Brown, J. S., 178
Brown, L. V., 638
Brown, N. E., 756
Brown, O. E., 867
Brown, R., 433, 458, 798
Brown, R. D., 800
Brown, W. L., 533
Browne, L. E., 540
Browning, E. T., 119, 128

Brownlee, G. G., 417
Brownlee, R. C., 538
Brownlee, R. G., 540
Brox, L. W., 821, 822
Broza, R., 211
Bruce, V. G., 249
Bruckental, I., 502, 503
Bruening, G. E., 348, 674
Bruice, T. C., 1019, 1020, 1029
Brulé, M., 578
Brumby, P. E., 335
Brümmer, W., 362
Brun, F., 1060
Brundage, G. B., 469
Bruner, R., 714
Brunngraber, E. G., 636
Brunori, M., 227, 228, 336, 619, 666, 680, 681, 1015, 1023, 1025
Brutlag, D., 297, 674, 861, 865
Bruton, C. J., 411, 674, 1058, 1061
Bruzzesi, M. R., 666
Bryan, J., 643, 644
Bryan, P., 513, 514
Bryant, J., 1050
Bryant, M. P., 398, 399
Bryant, P. J., 1097
Bryant, R. G., 625
Bryla, J., 123, 124, 125, 126
Buc, H., 670
Buc, M. H., 670
Bucana, C., 513
Buchanan, B. B., 202
Buchanan, J. G., 32
Buchanan, P. J., 552
Buchanan, R., 578
Büchel, K. H., 143
Bücher, H., 86, 87
Bücher, T., 84, 86, 92, 107, 118
Buchert, A. R., 1028, 1029
Buchholz, M., 120, 121
Buck, C. A., 49, 1047, 1048
Buckingham, R. H., 293, 294
Buckley, G. C., 580
Bucko, A., 552
Bucovaz, E. T., 1058, 1060
Budowsky, E. I., 1045, 1053, 1055
Bueding, E., 743, 756
Bujard, H., 903, 904, 914, 917, 927
Bullock, F. J., 610
Bullock, M. L., 876, 877, 885
Bulos, B., 131
Bunce, G. E., 558
Bunn, H. F., 1026
Bünning, E., 237
Bunyan, J., 551, 568
Burachik, M., 450
Burba, J., 478
Burchall, J. J., 412
Burdick, C. J., 302, 306
Burdon, R. H., 293, 1064
Burdzyk, K., 638
Burg, M. B., 763
Burge, B. W., 51, 52
Burgen, A. S. V., 339, 626, 627
Burger, M. M., 32, 49, 75, 405
Burgess, A. B., 883
Burgess, R. R., 711-40; 410, 645, 712, 713, 714, 715, 716, 717, 720, 724, 725, 729, 732, 799
Burgi, E., 900, 901, 910
Burgoyne, L., 948
Burkard, G., 421, 1047
Burkard, W. P., 471
Burke, G., 743, 744
Burkholder, W. E., 536, 537
Burnet, F. M., 971
Burns, C., 588
Burns, R. O., 675, 950, 955, 956, 957
Burns, S. N., 920
Burr, B., 273
Burrows, W. J., 1049
Burstein, C., 120
Burstein, S. H., 271
Burstein, S. R., 743, 745
Burtin, P., 970
Burton, A., 900, 901, 902, 903
Burton, H., 189
Burton, K., 1055
Busch, H., 280, 283, 284, 304, 1047
Busfield, D., 481, 482
Bush, J. A., 791
Bushuk, W., 266
Busse, H. G., 250, 251
Bustin, M., 280, 281, 282, 286, 295
Butcher, R. W., 354, 357, 467, 484, 491, 492, 742, 743, 744, 745, 746, 747, 748, 750, 754, 758, 759, 763, 766
Butenandt, A., 533, 536, 543, 545
Butler, B., 829, 832, 841
Butler, C. G., 534, 541, 545
Butler, G. C., 281
Butler, G. W., 459
Butler, J. A. V., 280, 281, 282, 289, 299
Butler, W. L., 211, 212, 217, 218, 219
Butterworth, F. M., 1096
Buttin, G., 873, 874, 878
Bycroft, B. W., 461
Byer, S. S., 471
Byers, G. S., 474
Byers, G. W., 88
Byfield, J. E., 798
Bygdeman, S., 488
Bygrave, F. L., 141, 764
Byington, K. H., 131
Bynum, B. S., 885
Bystrov, V. F., 612

C

Cabib, E., 40, 41, 352, 354
Caccam, J., 640
Cahill, F. D., 142
Cahill, G. F., 814
Cahn, R. D., 1035
Cairns, J., 793, 863, 869, 870, 874, 885, 888, 890, 900, 909, 915, 929, 930
Calam, D. H., 545
Calaustro, E. Q., 505
Calderón, E., 140
Caldwell, D. F., 553, 555
Caldwell, I. C., 814, 816, 817
Calef, E., 833, 841
Calendar, R., 733, 829, 925, 931, 1058
Calendi, E., 789, 790, 791
Calissano, P., 647, 648
Callahan, P. X., 281
Callan, J. D., 1000
Callow, R. K., 512, 541
Calvert, D. N., 479
Calvin, M., 199, 217
Calvo, J. M., 943-68; 950, 955, 956, 957
Calvori, C., 798
Cama, H. R., 552
Cameron, D. W., 457
Camiener, G. W., 790
Cammarano, P., 191
Campbell, A., 833, 836, 842, 844, 846, 847, 919, 920
Campbell, A. M., 910, 913
Campbell, D. H., 260
Campbell, F. M., 582
Campbell, J. A., 515
Campbell, M. E., 559, 561
Campbell, S. F., 1085, 1088
Campuzano, H. C., 580
Canady, W. J., 1014
Canas, F., 521
Canelo, E. S., 905, 910
Caniggra, A., 520
Cann, J. R., 655, 657
Cannon, B., 145, 146
Cantoni, G. L., 1055, 1056, 1059
Cantor, C. R., 202, 609, 1052, 1063
Cantwell, R., 676, 684, 1038

Capecchi, M. R., 411, 436, 437, 438, 439
Capek, A., 458
Capella, P., 60
Capra, J. D., 972, 980, 993, 997, 1050, 1051
Caputto, R., 71
Carafoli, E., 120, 121, 137, 138, 140, 244
Caramia, F., 647
Caraway, W. T., 590
Carayon, J., 1085
Carbon, J., 1049, 1054, 1055, 1056
Carbonara, A. O., 970, 1005
Carbonell, L. M., 40
Cardini, C. E., 264
Carlisle, D. B., 1081, 1085, 1095
Carlson, K., 120, 643
Carlsson, A., 466, 467, 470, 471, 481, 482, 519, 520
Carlton, B. C., 906, 914
Carnegie, J. W., 1048
Carnegie, P. R., 638, 639, 640
Caro, L. G., 782, 888, 891, 930
Carpenter, D. R., 1058, 1060
Carr, J. J., 580
Carraway, K. L., 1026
Carrington, A., 607
Carroll, E., 821
Carroll, J., 507, 508
Carson, V., 764
Carter, E. A., 1046
Carter, H. E., 57, 59, 61, 65, 67
Cartouzou, G., 754
Caryk, T., 436
Cascino, A., 879
Case, M. E., 945, 948, 949
Cashel, M., 731, 732
Casida, J. E., 123
Casillas, E. R., 743, 745
Caskey, C. T., 420, 436 437, 438, 440, 815, 818, 819
Casnati, G., 538
Casparrini, G., 60, 583
Casper, A., 489
Cass, L. E., 64
Cassani, G., 457, 717
Cassinelli, G., 789
Cassio, D., 411, 1058, 1060
Cassuto, Y., 117
Castañeda, M., 743
Castellan, G. W., 323
Caswell, A. H., 126
Caswell, H., 538
Cataldi, S. A., 951
Cater, C. W., 378, 379
Catlin, B. W., 1032
Catlin, G., 147, 244
Cattell, K. J., 131
Caughey, W. S., 619
Cavalieri, L. F., 298, 780, 782
Cavalli, L. L., 919
Cavanaugh, J. R., 612
Cavanna, R., 74
Cavill, G. W. K., 538, 1084, 1085, 1088
Cawson, M., 576
Cawthorne, M. A., 551
Ceasar, P. M., 475, 491
Cebra, J. J., 970, 1001, 1005
Cederquist, E., 582
Cederstrand, C. N., 178
Celikkol, E., 405
Celma, M. L., 428
Center, M. S., 878
Ceppellini, R., 1005
Cerami, A., 782, 785, 787, 788, 1052, 1062
Černá, J., 428, 429, 438
Černý, V., 1081, 1082, 1083, 1085, 1092
Cerulli, P. A., 1055
Cesari, I. M., 976, 997
Cha, C. M., 577, 582
Cha, S., 577, 582, 560
Chabaud, O., 44
Chadwick, P., 838, 839
Chae, Y.-B., 413, 414
Chaffee, R. R. J., 117
Chaglassian, T. H., 821
Chaiken, I. M., 272, 1018, 1034
Chaimovich, H., 1060, 1061
Chain, R. K., 198, 202, 209
Chakrabarty, A. M., 914, 924
Chalk, K. J. I., 512
Chalkley, R., 280, 281, 282, 289, 291, 293, 294, 295, 297, 299, 300, 302, 306, 883
Chalmers, A. H., 816
Chalmers, A. M., 537
Chaloupka, J., 404
Chamberlin, M., 712, 713, 714, 715, 716, 719, 720, 721, 724, 725, 726, 733, 734
Chambers, D. A., 730
Chambers, J. W., 764
Chambers, R. W., 1046, 1052, 1053, 1056, 1058, 1059
Chambon, P., 365, 716, 718, 801, 883
Champagne, M., 281, 299, 302
Chan, P. C., 553
Chan, S. I., 609, 610, 613, 626, 628, 1021
Chan, T. L., 135
Chan, T.-S., 1057
Chan, V. L., 876, 884
Chan, W. W. C., 266
Chanarin, I., 551
Chance, B., 117, 119, 120, 121, 123, 124, 125, 128, 135, 136, 137, 138, 140, 142, 145, 147, 148, 149, 150, 202, 203, 210, 213, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 251, 316, 317, 320, 327, 329, 331, 336, 340, 682, 1032
Chandler, B., 901
Chandler, P. T., 559, 561
Chandra, P., 1050
Chang, A. Y., 1056
Chang, J., 450
Chang, L. M. S., 867, 868, 869
Chang, S. I., 524
Chang, Y. Y., 746, 747, 764
Changeux, J. P., 125, 129, 252, 660, 662, 685, 1023
Chantrenne, H., 1052
Chanutin, A., 231
Chao, F.-C., 636, 638
Chao, L.-P., 639
Chapeville, F., 346, 363, 1055, 1056, 1058, 1061
Chapman, D., 628, 679
Chapman, H. F., 317
Chappell, J. B., 118, 119, 139, 140
Charache, S., 230, 231, 232, 619, 680
Chargaff, E., 1050
Charlier, J., 1054, 1058, 1059, 1060, 1061
Charlwood, P. A., 666
Chase, L. R., 743, 744, 745
Chasey, B. M., 747
Chastain, B. H., 1046, 1050, 1051
Chatterjee, A. K., 558
Chatterjee, N. K., 423
Chattopadhyay, S. K., 593
Chavancy, G., 1047
Chavez, E., 129
Chavez-Peon, F., 815, 820, 821
Cheeseman, G. C., 450, 456
Cheetham, R. D., 383, 390
Chelala, C. A., 351, 352, 756
Chen, D. H., 1083
Chen, G. C., 62
Chen, R. F., 86, 89, 91, 94, 96, 102, 104, 105, 339, 668, 676, 684, 688, 1033
Chen, T., 513, 517, 523
Cheng, C. H., 558
Cheng, P. Y., 839
Cheng, T., 905

Cheniae, G. M., 198, 218, 220
Chenoweth, M., 352, 761
Chernaenko, V. M., 1048
Chernavskaya, N. M., 238, 251
Chernavskii, D. S., 238, 239, 249, 251
Cherniak, R., 32
Chernitskii, E. A., 98
Cherry, J. H., 1047
Chersi, A., 1005
Chessin, H., 714
Chesters, J. K., 563
Chetverikova, E. P., 240
Cheung, H. C., 103, 1085
Cheung, H. T., 88
Cheung, W. Y., 743, 744, 746, 747, 749, 817
Chevallier, J., 1028
Chheda, G. B., 1049
Chi, Y.-M., 492, 743, 744
Chiancone, E., 666
Chiappino, G., 970
Chiba, N., 510, 511
Chidester, J. C., 538
Chien, J. R., 875
Chierugi, V. P., 1047
Chignell, D. A., 350
Childs, B., 817
Ching, T. M., 146
Chipchase, M. I. H., 998
Chipperfield, D., 764
Chipperfield, J. R., 317
Chirikdjian, J. G., 1057
Chittenden, G. J. F., 32
Chiu, M., 560
Chiu, T. H., 35
Chládek, S., 429
Chlih, J. J., 867
Chlumecka, V., 1058
Choppin, P. W., 52, 74, 75
Chou, F., 640, 641
Chowdhury, F. R., 759
Chrispeels, M. J., 1059
Christensen, H. N., 399
Christenson, J. G., 471
Christian, D. G., 591
Christiansen, E. N., 145, 146
Christiansen, R. O., 120, 135
Christman, D. R., 1032
Chu, L. C., 560, 568
Chu, R. C., 562
Chun, G. K., 266
Chubb, I. W., 473
Chuguev, I. I., 1054, 1056, 1059
Chumley, S., 819
Chun, E. H. L., 186, 187
Chun, P. W., 655, 656, 667
Churchich, J. E., 85, 89, 91, 108, 109, 668
Chytil, F., 746, 747
Ciaranello, R. D., 474
Cicero, T. J., 647, 648
Ciferri, O., 435, 455, 457
Cioli, D., 986, 1005
Cipera, J. D., 521
Citarella, R. V., 905, 910, 911, 912, 913, 920
Cittadini, A., 117
Cittanova, N., 1058
Cizin, Yu. S., 1081, 1083, 1084, 1085, 1088, 1090, 1092
Clamp, J. R., 583
Clancy, J. J., 553, 555
Clancy, J. W., 743, 745
Clark, A. J., 834, 844, 878, 910, 931
Clark, B. F. C., 411, 414, 415, 1046, 1048, 1056, 1052, 1063
Clark, C. T., 467
Clark, G., 576
Clark, J. L., 951
Clark, J. M. Jr., 1056
Clarke, A. D., 579
Clarke, L. P., 960
Clarke, M., 280, 283
Clarke, R. T. J., 459
Clarkson, K., 731
Clarkson, T. W., 380
Clason, A. E., 1064
Clausen, J., 641
Clayburn, B. J., 247
Claycomb, W. C., 743, 745
Clayman, M., 754
Clayton, D. A., 901, 904, 917, 933
Clayton, R. K., 206
Clegg, R. A., 124
Clejan, L., 593
Clement, G. E., 1028
Clemente, C. D., 479
Clemetson, C. A. B., 580
Clewell, D. B., 899-942; 881, 907, 908, 909, 912, 922, 926, 927, 928
Cline, A. L., 954, 1050
Clinger, J. M., 587
Clinton, G. M., 1049
Cloutier, L. A., 581
Clower, B. R., 556
Clowes, R. C., 901, 906, 912, 913, 920, 921, 922, 923
Clubb, M. E., 460
Coates, M. E., 551, 556, 557
Coche, A., 89
Cockrell, R. S., 127, 135, 142
Codington, J. F., 47, 610
Coelingh, J. P., 280
Coffman, G. D., 583
Cohen, A., 791, 921
Cohen, A. M., 558
Cohen, B., 558
Cohen, B. B., 423
Cohen, G. H., 1026
Cohen, G. N., 334, 398, 675, 951
Cohen, J. A., 141, 902, 906, 1028
Cohen, J. S., 611, 612, 614, 615, 617, 618, 620
Cohen, L. A., 680, 1019
Cohen, L. W., 539
Cohen, N. L., 560
Cohen, P. P., 668
Cohen, S., 644, 645, 646, 970, 1005
Cohen, S. G., 1020
Cohen, S. N., 906, 913, 921, 922
Cohen, S. S., 434, 435, 856
Cohen-Addad, J. P., 618
Cohn, D. V., 524
Cohn, E. J., 14, 18
Cohn, M., 234, 403, 607, 609, 611, 621, 622, 623, 624, 628, 976, 987, 997, 1053
Cohn, W. E., 520
Coker, M., 958
Colberg, J. E., 970
Cole, R. D., 279, 280, 281, 282, 283, 286, 295, 303, 304, 364, 365
Coleman, J. E., 578
Coleman, J. R., 885
Coleman, M. D., 818, 819
Colen, A. H., 339
Coles, H. S., 128
Coles, L., 58, 70
Collen, M. F., 588, 589
Collier, C. W., 536
Collier, M., 580
Collier, R. J., 361, 433
Collins, D. M., 1025
Collins, G. G. S., 477
Collins, J., 924, 927
Colman, R. F., 667, 668, 679
Colmano, G., 174
Colomb, M. G., 141
Colombo, B., 420
Colowick, S. P., 9, 743
Colvill, A. J., 722, 723, 799
Comar, C. L., 518
Comb, D. G., 1047
Combard, A., 299, 300
Comeau, A., 536, 544
Comings, D. E., 307, 883, 884
Comline, R. S., 481
Comoy, E., 578
Condamine, H., 722, 799
Congote, L. F., 1096
Conklin, J. L., 392
Connamacher, R. H., 471
Connaway, S., 730
Connell, G. E., 582
Connelly, J. L., 129
Connett, R. J., 473, 489, 490

Connolly, D. C., 552
Connors, P. G., 411, 1063, 1064
Conquy, T., 506
Conrad, H. E., 33, 34
Conrad, K., 1049
Conrad, R. H., 94, 102, 105
Constandse, W. J., 584
Constantin, R. J., 189
Constantinides, S. M., 676
Contessa, A. R., 759
Conti, F., 612, 613, 779
Conway, A., 686
Conway, A. F., 332
Conway, T. P., 1001, 1004, 1005, 1006
Conway, T. W., 419, 431
Cook, A. H., 562
Cook, R. A., 675, 686
Cook, W. H., 741
Cooper, A. G., 973
Cooper, D., 425, 426
Cooper, J. M., 579
Cooper, J. R., 467
Cooper, M. D., 970
Cooper, P. H., 961
Cooper, R. A., 346, 350
Cooper, S., 926
Cooper, T. G., 384, 584
Cope, F. W., 625
Copeland, B. E., 577
Coppel, H. C., 539
Corbett, C., 795
Corbin, J. D., 357, 755, 758, 759
Corcoran, J. W., 798
Cordonnier, C., 878
Corey, E. J., 1085, 1088
Cori, C. F., 354, 755
Cori, G. T., 346, 347, 348, 755
Corman, L., 668
Corner, G. W., 3
Cornillot, P., 578
Cornish-Bowden, A., 686
Cornog, J. L. Jr., 99
Cornwell, D. G., 61
Corradino, R. A., 501-32; 516, 523, 524, 525
Corrance, M. H., 1051
Corrodi, H., 469, 470
Cortijo, M., 90, 109
Cory, S., 411, 1046, 1048
Cos, D. L., 578
Cosenza, H., 970
Costa, E., 483, 484, 485, 487, 743, 744, 748, 749
Cotlove, E., 590
Cotman, C. W., 638
Cotran, R. S., 379, 391
Cottam, G. L., 625
Cotterrell, G. P., 1083
Cotton, F. A., 1032, 1033, 1035
Cotton, G. H., 950
Couch, R. D., 589
Coukell, M. B., 870
Countryman, R., 1025
Court, D., 833, 848
Cousins, R. J., 513, 517, 523
Coutts, S. M., 1053, 1056
Coverdale, C. E., 798
Cowan, C. A., 187
Cowan, P. M., 95
Cowan, R. L., 559, 561
Cowan, W. M., 647
Coward, W. A., 505, 562
Cowgill, R. W., 85, 89, 92, 93, 97, 99, 348, 349
Cox, A. C., 674
Cox, D. H., 562
Cox, D. J., 657
Cox, E. C., 857, 947
Cox, J. M., 228, 675, 680, 682, 683, 1025
Cox, R. A., 1045
Cox, R. P., 75, 817
Cozzarelli, N. R., 273, 274, 858, 859, 860, 861, 863, 864, 875, 887, 914, 922
Craddock, C. G., 593
Craddock, V. M., 1050, 1051
Craig, L. C., 450, 456, 457, 612
Craig, P. H., 525
Craig, R. J., 743, 745
Cramer, F., 1045-78; 1045, 1053, 1054, 1055, 1056, 1062, 1063, 1064
Cramer, K., 578
Cramer, W. A., 211, 212, 218, 219
Crane, F. L., 123, 164, 165, 166, 172, 178, 179, 214, 215, 216, 217
Crane-Robinson, C., 300, 301, 302, 613, 620
Cranston, F. P., 534
Craven, G. R., 674
Cravens, M., 421
Crawford, I. P., 665, 678
Crawford, L. V., 902, 903, 904, 914
Creange, J. E., 760, 761
Credner, K., 470
Creech, R. G., 190
Creek, J., 1063
Creighton, T. E., 645
Cremer, J. E., 130
Crespi, H. L., 614, 615
Creuzet, C., 300, 304
Creveling, C. R., 467, 474, 478, 746
Crevier, M., 384
Crewe, R. M., 538
Crewther, W. G., 404
Crick, F. H. C., 435
Criddle, R. S., 190, 331, 367, 676, 684, 798, 1036, 1038
Crippa, M., 728
Cristea, I., 247
Crocco, R. M., 760
Croft, H., 931
Crofts, A. R., 134, 136, 139, 197
Crook, K. E. Jr., 791
Cross, M. E., 292, 293, 294, 297
Cross, R. L., 130
Crothers, D. M., 779, 782, 786, 796
Crouch, R. J., 733
Crout, J. R., 480
Crowley, L. V., 581
Csaba, G., 308
Csallany, A. S., 553, 560
Csejtey, J., 636, 638, 639, 641
Cuaron, A., 583
Cuatrecasas, P., 259-78; 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 1018, 1032, 1034, 1035
Cuculis, J. J., 392
Cullen, W. P., 803
Cullis, C. F., 250
Culp, L. A., 1051
Culp, T. W., 581
Culp, W. J., 433
Cumar, F. A., 50
Cunningham, B. A., 979, 980, 1005
Cunningham, L., 1032
Cunningham, L. W. Jr., 1028
Curnish, R. R., 231
Curry, J. B., 1054, 1056
Curtiss, R. III, 910, 921
Curtius, H.-C., 579, 582
Cushley, R. J., 610
Cusumano, C. L., 1032, 1033
Cutler, J. L., 589
Cutts, J. H., 594
Cuzin, F., 901, 915, 921, 924, 925, 926, 931, 932
Czajkowski, R. C., 796
Czarnowska-Misztal, E., 523
Czech, M. P., 147
Czerlinski, G. H., 660, 1031, 1032
Czubaroff, V. B., 664

D

Dacremont, G., 73
Dahl, J. L., 1062
Dahlberg, J. E., 417
Dahlquist, F. W., 626, 1021
Dahlström, A., 469, 486, 487
Dahm, K. H., 1081, 1082, 1083, 1084, 1085, 1088,

1090, 1091, 1092, 1094, 1095
Daile, P., 764
Daillie, J., 1047
Dain, J. A., 71
Dairman, W., 471, 490
Dalal, K. B., 639, 641
Dale, H. H., 466
Dales, S., 800, 878
Daley, K., 725
Dalgard, M., 478
Dalgarno, A. C., 563
Daly, J., 474, 478, 479
Daly, J. W., 746
Dalziel, K., 327, 686
Dambmann, C., 611
Danchin, A., 623, 1053, 1055
Dancis, J., 593, 813, 814, 816, 817
Daneholt, B., 1046
Danes, B. S., 72
Danforth, W. H., 354
D'Angelo, G. L., 469
Daniel, E., 91, 102, 105, 110
Daniel, V., 882, 1046, 1048, 1064
Daniels, M. J., 455, 883, 884, 925
Daniels, M. P., 642
Danielson, L., 147, 148
Dankert, M., 30
Dannenberg, M. A., 131
Dannies, P. S., 647
Danyluk, S. S., 609, 610, 779
Da Prada, M., 482
Darby, G., 861
Darcey, B., 580
Darlix, J. L., 714, 726
Darnell, D. W., 654, 662, 672, 674
Darnell, J. E., 51, 420, 421, 1047
Darnell, J. E. Jr., 1064
Därr, W., 68
Darrow, R. A., 675
Darvey, I. G., 322
Dasdia, T., 790, 791
Dass, H., 578
Datko, E. A., 218
Datta, A., 149
Datta, N., 910, 913
Daune, M. P., 299, 302
Dautrevaux, M., 283, 295 295
Davenport, G., 319
Davenport, H. E., 199, 201, 202, 209
Davern, C. I., 886, 929
David, G. S., 1005, 1006
David, H., 1049, 1055
David, J. S. K., 502, 503
Davidsohn, I., 574
Davidson, B. E., 684
Davidson, E. A., 43
Davidson, J. N., 815, 816
Davidson, N., 778, 780, 785, 836, 850, 890, 901, 903, 910, 914, 930
Davie, E. W., 714, 732
Davie, J. M., 275
Davies, C., 555
Davies, D. D., 292
Davies, D. R., 1026
Davis, B. B., 743, 744, 745
Davis, B. D., 416, 821
Davis, C. H., 348, 349
Davis, D. G., 615, 619, 680
Davis, F. F., 1049, 1057
Davis, J. J., 1001, 1005
Davis, J. S., 743, 745
Davis, J. W., 750, 751
Davis, L. A., 1017, 1031, 1032
Davis, R., 384, 888, 927, 929, 932
Davis, R. H., 950
Davis, R. W., 728, 733, 850, 933
Davis, W. J., 638, 639
Davis, W. W., 754, 760
Davison, A. N., 69
Davison, J., 729, 838, 839, 840
Davison, P. F., 642
Davoren, P. R., 743, 744
Dawes, R. L. F., 578, 582
Dawid, I. B., 902, 903, 904, 915, 917, 923
Dawkins, R. C., 427
Dawson, A. P., 130
Dawson, G., 59, 60, 69, 72, 73
Dawson, R. M. C., 61, 167, 638, 639
Dayhoff, M. O., 202, 285, 972, 973, 974, 976, 980, 993
Deal, W., 231, 1023
Deal, W. C. Jr., 676, 757
Deamer, D. W., 136, 244
Dean, B. M., 821
Dean, C., 877
Dean, J. A., 574
Dearden, M., 1097
Dearman, H. H., 791
Deb, C., 381, 385, 386, 388, 390
Debabov, V. G., 300, 302
DeBrandt, C., 351, 352
Debrecini, N., 878
de Champlain, J., 477, 482, 485
Decker, W. J., 587
De Combal, F. T., 584
De Crombrugghe, B., 730, 752, 753
DeDeken, R., 958, 961
de Duve, C., 119, 376, 377, 382, 390
Deeney, A. O. C., 1048
DeFlora, A., 367
deFranco, A., 667
de Gasquet, P., 553
de Gier, J., 628
Degn, H., 239, 245, 247, 250, 251
de Groot, A. P., 558
De Groot, N., 404, 1055
De Hauwer, G., 953, 963
Deibler, G. E., 638, 639
DeJonge, A. J. R., 878
DeJough, D. C., 60
Dekker, A., 743, 744, 745
Dekker, C. A., 1032
de la Fuente, R. K., 190
de la Haba, G., 422
Delain, E., 901, 918, 934
DeLange, R. J., 279-314; 279, 280, 281, 282, 283, 284, 285, 286, 288, 289, 291, 292, 295, 300, 301, 304, 346, 350, 364, 365, 756
Delbrück, A., 118
deLeeuw, R. J. M., 582
deLeon, S., 513
Della Corte, E., 346, 363
DeLong, C. W., 460
De Lorenzo, F., 951, 962, 963, 1058, 1062
de Loureiro, J. A., 557, 560
del Rosario, E. J., 326
DeLuca, H. F., 503, 512, 513, 514, 515, 516, 517, 518, 519, 521, 522, 523, 524, 525
DeLuca, L., 511
DeLuca, M., 1058, 1060, 1061
DeLucia, P., 793, 863, 869, 870, 931
De Maccioni, A. H. R., 71
de Maeyer, L. C., 318, 323
De Mars, R., 817
DeMaster, E. G., 130
DeMember, J. R., 88
Demerec, M., 909
DeMoss, R. D., 665
Dengler, H. J., 480, 481
Denhardt, D. T., 870, 874, 883, 887, 888, 927, 929, 931
Denkewalter, R. G., 1017
Dennert, G., 1057
Dennis, D., 264
Dennis, E. A., 614, 620
Denton, D. M., 358, 359
Deol, B. S., 460
Deonier, R. C., 665
DePetris, S., 36
De Petrocellis, B., 181
DePierre, J., 145, 147
De Potter, W. P., 484

Derechin, M., 656
DeRenzo, E. C., 759
Der Kaloustian, V. M., 817
De Robertis, E., 487, 636, 647, 743, 746, 747
DeSa, R. J., 249, 318, 1028
Desai, L., 284
Desalles, L., 743
DeSantis, P., 779
De Schaepdryver, A. F., 484
Desforges, J. F., 593
Deshmukh, D. S., 503
Desnick, R. J., 58
Desnuelle, P., 1026
DeSombre, E. R., 542
Dessen, P., 667
Determann, H., 1017
DeToma, F., 665
Deus, B., 581
Deutsch, D. G., 271
Deutsch, H. F., 1005
Deutscher, M. P., 405, 856, 858, 859, 860, 861, 863, 864, 1062
DeVault, D., 317, 1032
de Vigneaud, V., 473
DeVijlder, J. J. M., 686
DeVincenzi, D. L., 348, 670
Devinny, J., 904, 906
De Vita, V. T., 796
Devlin, T. M., 117
Devoret, R., 834
De Vries, J., 520
De Wachter, R., 417
Dewey, K., 413, 414, 416
DeWitt, W., 905
De Wulf, H., 348, 351, 352, 353, 354, 355, 761
Dexter, D. L., 87
deZalinski, C., 328
Dezelee, S., 798, 801
DiBella, F., 644
DiCaprio, J. M., 638, 639
Dick, A. J., 417
Dick, C., 281, 303, 306
Dick, M., 522
Dickerman, H. W., 411
Dickerson, R. E., 1029, 1030, 1031
Dickey, R. P., 583
Di Donato, S., 72
Dieckmann, M., 411, 803
Diegelmann, R. F., 457
Diemar, S., 1036
Dietz, S. B., 750, 751
diFranco, A., 334
Diggle, J. H., 281, 282
Digham, C. T., 591
DiGirolamo, A. B., 455
DiGirolamo, M., 455
Dillard, W. L., 190
Dilley, R. A., 136, 164, 165, 166, 172, 178, 179
Dils, R., 552
Di Marco, A., 789, 790, 791
Di Marco, S., 790, 791
Di Mari, S. J., 66, 67
Di Matteo, G. F., 431
Di Mauro, E., 716, 721, 799, 800
Dimitrova, F. F., 1048
Diner, O., 484
Dingle, J. T., 508, 509, 510
Dintzis, H. M., 262, 421, 422, 1018
Dionisi, O., 117
D'Iorio, A., 478
DiPeri, C., 1059
Diplock, A. T., 551, 568
Dirheimer, G., 1046, 1047, 1054, 1058
Dito, W. R., 583
Dittmer, K., 398
Diver-Haber, A., 66
Dixit, P. K., 521
Dixon, G. H., 280, 282, 283, 285, 290, 293, 294, 295, 296, 306, 364, 365, 422, 1026
Dixon, J. W., 1026, 1028
Dixon, M., 377
Djordjevic, B., 795
Dlabac, A., 484
Dmochowski, H., 381, 385
D'Obrenan, P., 1058
Dobrow, D. A., 576
Doctor, B. P., 1046, 1048, 1063
Dod, B. J., 74
Dodd, G. H., 149, 679
Dodson, C. H., 535
Doepner, H., 1054, 1063
Doherty, D. G., 1014
Doi, R. H., 402, 1047, 1049
Doig, A. R. Jr., 582
Dolby, L. J., 88
Dolejš, L., 1081, 1082, 1083, 1085, 1092
Dolezilova, L., 458
Dollwet, H. H. A., 513
Dols, M. J. L., 520
Doly, J., 365, 718
Dolzmann, P., 191, 192
Donati, E. J., 385
Dondon, J., 414, 415
Donellan, J. F., 121
Donike, M., 59
Donovan, M. P., 149
Doolittle, R. F., 400, 542, 543, 1001, 1005
Doolittle, W. F., 800, 956, 958, 959, 1058
Doonan, S., 327, 338
Dorfman, R. I., 30, 42, 43, 72, 73, 472, 505
Dorigo, P., 759
Döring, G., 210, 220
Dorizzi, M., 1058
Dorr, I., 367
Dorrington, J. H., 760
Doss, M., 62
Doty, P., 415, 721, 722, 879, 1031, 1056
Douglas, B. H., 556
Douglas, W. W., 467, 483, 484
Doumas, B., 581
Dourlent, M., 1053
Douša, T., 743, 745, 763
Dove, W. F., 829, 841, 849, 890, 919
Dove, W. F. Jr., 903
Dowdle, E. B., 518, 519
Dowling, J. E., 505
Downey, K. M., 718, 719, 721, 725
Doyle, D., 346, 366, 944
Drabkina, A. A., 1081, 1083, 1084, 1085, 1088, 1090, 1092
Dragstedt, C. A., 477
Drahota, Z., 146, 147
Drahovski, D., 1061
Drake, J. W., 857
Draper, H. H., 553, 560
Dray, S., 970, 1001, 1004, 1005, 1006
Drechsler, Z., 136
Drees, O., 74
Dreher, K. D., 509
Dreifuss, F. E., 814, 816
Dreizen, P., 674
Drenth, J., 266, 324
Dreosti, I. E., 563
Dreskin, R. B., 392
Dressler, D., 862, 883, 887, 888, 921, 929, 930, 932
Dressler, D. H., 888, 889
Dressler, R. L., 535
Drews, G., 1096
Drexhage, K. H., 86, 87
Dreyer, W. J., 972, 973, 976, 979, 985, 1004, 1006, 1007, 1026, 1028
Driskell-Zamenhof, P. J., 911
Drochmans, P., 379
Dröge, W., 33
Drott, H. R., 233
Drummond, G. I., 350, 351, 354, 641, 746, 749, 750
D'Silva, J. L., 763
Dubbs, D. R., 1051
Dube, S. K., 411, 419, 420, 1046, 1048, 1056, 1057
Dube, V., 581
Dubert, J. M., 722, 724, 1051
Dubin, D. T., 778, 798
Dubiski, S., 1005, 1006
Dubnau, D., 1064
Dubnau, E., 924, 932
Dubnoff, J. S., 413, 732, 733
Duckworth, H. W., 578
Dudai, Y., 268
Dudman, W. F., 33
Dudnik, Y. V., 787, 788, 790

Dudock, B. S., 1048, 1052, 1059
Duée, E. D., 141
Duffus, C. M., 743, 744
Duffus, J. H., 743, 744
Duffy, J. C., 584
Dugas, H., 1028
Dukes, P. P., 71
Dulbecco, R., 901, 914, 915, 919, 920, 930
Dumas, L. B., 861
Dumont, J. E., 743, 744
Duncan, L., 350, 351, 354
Dunford, H. B., 625
Dunitz, J. D., 613
Dunker, A. K., 673
Dunn, A., 352, 761
Dunn, F. W., 398, 399
Dunn, J. J., 410, 645, 713, 714, 715, 717, 724, 725, 729, 732, 733, 734, 799
Dunn, M. F., 330, 678
Dunn, R. T., 582
Dunnick, J., 743, 745
Dunstone, J. R., 664
Duntze, W., 345-74; 365, 944, 947
DuPraw, E. J., 883, 915
Durakovic, A., 519
Durst, R. A., 574
Dürwald, H., 927
Dusek, Z., 1060
Dutcher, T. F., 970
Dutheillet-Lamonthezie, N., 885
Dütting, D., 1045, 1048
Dutton, G. R., 644
Dutton, P. L., 124, 126, 134
Duysens, L. N. M., 86, 198, 199, 210, 217, 218, 238
Dvilansky, A., 820, 821
Dybkaer, R., 576
Dynga, L. O., 1047

E

Eagles, P. A. M., 683
Eanes, R. Z., 581
Earhart, C. F., 883, 884, 925, 1059
Earnhardt, J., 300, 883
Eaton, W. A., 1031, 1032, 1047
Ebadi, M. S., 594, 748, 749
Ebashi, S., 351, 355
Ebel, J. G., 524, 525
Ebel, J. P., 1045, 1047, 1049, 1054, 1055, 1058
Eberle, E. D., 566
Ebisuzaki, K., 863, 876, 878, 884
Eble, T., 458
Ebner, E., 360
Echols, H., 827-54; 729, 829, 832, 834, 835, 837, 838, 839, 840, 841, 842, 844, 845, 846, 847, 848, 849, 850, 878, 883, 919, 920
Eck, R. V., 202
Eckfeldt, J., 338
Eckstein, F., 750, 1056, 1062
Eclancher, B., 421, 1047
Edelhoch, H., 19, 20, 86, 89, 91, 92, 93, 94, 96, 99, 100, 122, 659
Edelman, G. M., 47, 86, 100, 648, 859, 901, 970, 971, 972, 979, 980, 990, 993, 997, 998, 1000, 1005, 1006, 1007
Edelman, M., 187
Edelstein, S. J., 673, 682
Edidin, M., 48
Edlin, G., 731
Edman, P., 972, 973, 979
Edmundson, A. B., 300, 301, 976
Edozien, J. C., 820
Edsall, J. T., 1-28; 5, 10, 11, 12, 13, 14, 18, 19, 20, 21, 22, 25, 339
Edström, J. E., 594
Edstrom, R. D., 30, 31
Edwards, G. C., 453
Edwards, J. A., 1085, 1088
Edwards, L. J., 281, 282
Edwards, P. A., 280, 283, 299
Eeg-Larsen, N., 519
Egami, F., 779, 788, 1055
Egan, B. Z., 1046
Eggerston, G., 414
Eggleston, L. V., 118, 551, 554
Eglinton, G., 60
Egyházi, E., 1046
Ehrenberg, A., 124, 328
Ehresmann, C., 1055
Eichel, B., 594
Eichhorn, G. L., 297, 298
Eichmann, K., 974, 998, 1004
Eidlic, L., 956
Eiduson, S., 477, 566
Eigen, M., 242, 253, 316, 318, 319, 323, 324, 325, 326, 332, 338, 686
Eigner, E. A., 1058, 1060, 1061
Eigner, J., 879
Eikenberry, E. F., 404
Eik-Nes, K. B., 743
Ellermann, L. J. M., 127, 150
Ein, D., 976, 979, 1004
Einarsson, M., 267
Einstein, E. R., 635-52; 636, 638, 639, 641
Eisen, H., 832, 833, 841, 887, 921, 928, 929
Eisen, H. N., 101
Eisenberg, D., 1029, 1030
Eisenberg, H., 656, 666, 667, 668
Eisenfeld, A. J., 480, 481
Eisenhardt, R. E., 316, 317
Eisenhardt, R. H., 147
Eisenstadt, A., 415
Eisenstadt, J. M., 187, 412, 413, 414, 415, 420, 421
Eisenstein, A., 560
Eisenstein, R., 520
Eisinger, J., 85, 88, 89, 90, 91, 94, 95, 96, 97, 99, 1049, 1051, 1052, 1056
Eisner, T., 533, 534, 535, 536, 537
Ekert, B., 1052
Eklund, C., 33
Elat, D., 1055
Elbein, A. D., 32
Elbers, P. F., 169
Elder, J. W., 1051
Eldjarn, L., 270, 577
Eley, D. D., 84
Eley, J., 264
Elias, H. G., 656
Eliceiri, G. L., 1050
Elgin, S. C. R., 279, 280, 281, 282, 288, 289, 300, 304
Elion, G. B., 821
Elkana, Y., 86, 89, 98, 105
Elking, Sister M. P., 590
Ellefson, R. D., 582
Ellem, K. A. O., 790
Ellenbogen, L., 469, 470
Elliott, D. C., 811, 812
Elliott, S. D., 404
Elliott, T. R., 466
Elliott, W. H., 404
Ellis, G., 581
Ellis, P. E., 1081, 1085, 1095
Ellis, W. D., 625
Elmadjian, F., 472
Elsaesser, S., 240, 242, 360
Elson, D., 437, 1046, 1055, 1062
Elson, H. E., 36
Elstner, E., 208
Elveback, L. R., 587
Elvehjem, C. A., 558, 560
Elzinga, M., 132
Emerson, R., 163
Emery, A. J. Jr., 717, 719
Emery, R. S., 519
Emme, I., 779
Emmer, M., 730, 752
Emmerich, B., 787
Emmerich, H., 1095, 1096
Emsley, J. W., 607, 609
Endo, A., 36, 37

Endo, H., 793
Eng, L. F., 636, 638
Engel, P. C., 686
Engelbrecht, H. L., 405
Engelhardt, D. L., 411
Engelman, K., 479
Engelsma, G., 366
Enger, M. D., 303
Englander, S. W., 1055
Englund, P. T., 674, 856, 857, 858, 863, 864, 865, 866, 871
Engstrom, G. W., 523
Enoki, Y., 675, 680
Enser, M., 366
Ensign, J. C., 404
Entman, M. L., 743, 764
Enzmann, F., 402
Epand, R. M., 614, 616, 617
Epler, J. L., 1047, 1059
Epley, J. D., 33, 34
Epstein, C. J., 816
Epstein, F. H., 383, 519
Epstein, H. T., 187
Epstein, S. E., 743, 745, 764
Epstein, W., 346, 712
Epton, R., 400
Erankö, O., 384, 390
Erbe, R. W., 430
Erbstoesser, J. W., 717, 800
Erdahl, W. S., 882
Erdelt, H., 141
Erdmann, V. A., 1054, 1063
Erdös, T., 429
Erecinska, M., 121, 124, 1032
Er-el, Z., 110
Erhan, S., 273, 880
Erhardt, F., 1054
Erickson, B. W., 1085, 1088
Erickson, H. T., 189
Erickson, M. M., 584
Ericsson, J. L. E., 383, 390
Erlanger, B. F., 264
Erman, J. E., 319, 324, 326
Ermolaev, V. L., 88, 104
Ernback, S., 260, 1018
Ernst, K. D., 542
Ernst, R., 608
Ernster, L., 118, 119, 120, 121, 124, 128, 129, 131, 134, 135, 136, 137, 143, 145, 146, 147, 148
Ernzerhoff, C., 471
Eron, L., 730
Errera, M., 885
Ertinghausen, G., 580, 586
Erwin, V. G., 477, 757
Esipov, S. E., 787
Eskeland, T., 664
Espejo, R. T., 905, 910
Essner, E., 379, 380, 382, 383, 390
Estabrook, R. W., 123, 124, 238, 240, 247, 248, 384
Estes, L. W., 383
Estrada-O, S., 140, 244
Eto, T., 63
Ettlinger, L., 458
Evans, H. M., 564
Evans, J., 718
Evans, J. M., 627
Evans, M. C. W., 201, 202
Evans, M. G., 84
Evans, P. K., 1049
Evans, T. R., 88
Evans, W. H., 275
Evans, W. J., 1015
Evenson, M. A., 580
Everett, G. A., 1048
Everse, J., 362, 433, 434
Exton, J. H., 354, 761, 764
Eylar, E. H., 48, 638, 639, 640
Ezekiel, D. H., 722, 799

F

Fabry, P., 563
Fahey, J. L., 970, 1005
Fahien, L. A., 469, 488, 491, 668
Fahimi, H. D., 379, 391
Fahnestock, S., 429
Fain, J. N., 146, 147, 759, 761, 762
Fairfield, S. A., 1047
Fakher, B. A., 404, 405
Falaschi, A., 795, 796, 856, 885
Falck, B., 466
Falcon, C., 390
Falcone, A. B., 244
Fales, H. M., 479, 1081, 1082, 1085, 1092
Falkow, S., 911, 912, 913, 914, 920, 921, 922, 924
Faludi, B., 189
Faludi-Daniel, A., 189
Fambrough, D. M., 280, 281, 282, 283, 284, 285, 286, 289, 291, 292, 295, 296, 297, 300, 301
Fancher, H., 803
Fang, V. S., 583
Fangman, W. L., 917, 931
Fanning, E. M., 972, 973
Farah, A., 763
Farber, E., 117, 293
Farese, G., 578
Farese, R. V., 754, 761
Farquhar, M. G., 381
Farrelly, J. G., 109
Farstad, M., 357
Fasella, P., 338
Fasciolo, F., 1059
Fasman, G. D., 98, 99, 300, 302, 647, 1028, 1053
Fassina, G., 759
Fast, D., 763
Faulkner, D. J., 1085, 1088
Faulkner, R., 285, 365
Faulkner, R. D., 1055
Faulkner, W. R., 574
Fausto, N., 814
Favorova, O. O., 1058, 1059
Favre, A., 1052, 1053, 1055, 1063
Fawaz, G., 583
Fedak, S. A., 743, 745
Feder, J., 1026
Feeney, J., 607, 609
Feigelson, P., 675
Feiner, L., 875, 877, 885, 886, 887
Feingold, D. S., 383
Feingold, I., 970
Feinleib, M., 589
Feinstein, A., 972, 985, 1001, 1005
Feinstein, M., 754
Feinstein, M. B., 149
Felt, H., 644
Feltelson, J., 86, 89
Feld, M., 72
Feldman, F. J., 553
Feldman, I., 610
Feldman, M., 970
Fel'dman, M. Ya., 1054
Feldman, R., 589
Feldmann, H., 1048
Felicetti, L., 431, 433
Felix, J. S., 817
Felix, K., 296
Fell, H. B., 507, 508, 509, 510
Felsenfeld, G., 297, 298, 299, 780, 781, 785
Felsenfield, H., 149
Felton, S. P., 122
Fenn, M. D., 613
Fenton, J. C. B., 578, 579
Feofilov, P. P., 108
Ferber, E., 149
Ference, M., 954, 955
Ferguson, J. J. Jr., 365, 754, 760
Ferguson, S. M., 116, 119, 132, 133, 139
Fernandes, J. F., 813
Fernandez, M. C. G., 353
Fernandez-Moran, H., 918
Fernley, H. N., 317, 325
Ferrand, M., 44
Ferrando, R., 553
Ferretti, J. A., 613
Ferris, F. L., 879
Fessenden, J. M., 121
Fessenden-Raden, J. M., 131
Fetzer, V., 469, 470
Feuer, B., 85, 88, 89, 91, 99, 1052, 1056

Feyerabend, H., 248
Fidel, P. A., 577
Fidge, N. H., 503, 504
Fiedler, R. P., 760
Field, J. B., 743, 744, 745, 748
Fielding, P., 883, 884
Fields, K. L., 725, 734
Fiers, W., 900
Fieve, R. R., 578
Files, J. B., 591
Filipescu, N., 88
Filipovich, G., 613
Filippovich, I. I., 1047
Filmer, D., 656, 662, 685
Finch, L. R., 1047
Finder, A. G., 763
Findlay, D., 325
Findlay, J. A., 1085, 1088
Fingerhut, B., 578
Fink, G. R., 943-68; 948, 949, 960
Fink, K., 812
Fink, L. M., 1047, 1054
Finkel, J. M., 582
Finkelstein, J. D., 512, 513, 516, 518
Finkelstein, T., 1052
Finkle, B. J., 479
Finkle, B. S., 580
Finlayson, B., 338, 339, 658
Finn, F. M., 272, 1017, 1018
Firschein, H. E., 522
Firshein, W., 883
First, R. S., 573
Fischer, E. H., 264, 346, 348, 349, 351, 352, 364, 670, 674, 755
Fischer, H., 149
Fischer, J. E., 477, 479, 481
Fischer, J. J., 608, 610, 622, 624, 625, 626, 627
Fischer, R. J., 1001, 1005
Fischman, D. A., 39
Fish, C. H., 816
Fish, W. W., 673, 674
Fisher, C. E., 980
Fisher, F. M., 1080
Fisher, H., 1047
Fisher, H. F., 667
Fisher, J. N., 759
Fisher, R. J., 132
Fisher, R. R., 148
Fisher, W. D., 921
Fishkin, A. F., 43
Fishman, M. M., 780
Fisk, H. R., 645
Fitch, W. M., 969-1012; 202, 979, 982, 983, 1005, 1031
Fittler, F., 1049, 1055
Fitzgerald, P. J., 293, 294
Fiume, L., 801
Flack, J. D., 743, 744, 759
Flavell, R. A., 918
Fleischer, S., 118, 1032
Fleischman, J. B., 47, 1006
Fleissner, E., 1050, 1051
Fleming, J., 668
Fletcher, D. J. C., 538
Fletcher, M. J., 582
Fleysher, M. H., 1049
Flood, K. M., 1046
Flory, P. J., 95
Flowers, H. M., 66
Fluherty, A. L., 73
Flynn, F. V., 584
Flynn, P. D., 743, 745, 746, 759
Fodor, I., 1059
Foft, J. W., 1048
Fogel, S., 1001
Folch-Pi, J., 637
Folk, W. R., 1058
Folkers, K., 402
Fölsch, G., 1055
Fondy, T. P., 263, 266, 1036
Fontana, A., 1033
Fontenelle, L. J., 816, 819
Fonyó, A., 139
Forbes, R. M., 558, 562
Forbush, B., 218
Ford, D. L., 538
Foreman, J. A., 581
Fork, D. C., 191, 192, 206
Forlani, L., 1015
Formica, J. V., 66
Forn, J., 746
Foroglou-Kerameos, C., 384
Forrest, H. S., 204
Forrester, S., 299, 300, 304
Forro, F., 911
Forsberg, S. A., 857
Forsén, S., 625
Förster, T., 85, 86, 87, 88, 107
Forte, J. G., 518
Fortes, P. A. G., 244, 245
Forti, G., 201
Fortier, N. L., 593
Foster, C., 559, 560
Foster, J. F., 11
Foster, T. S., 554
Fougereau, M., 981
Fourman, P., 521
Foust, G. P., 201
Fouty, R. A., 574
Fox, C. F., 883, 884
Fox, I. H., 822
Fox, J. J., 610
Fox, J. L., 436
Fox, M. R. S., 552, 559, 589
Fox, R. H., 638, 639
Foy, E. F., 575
Franceschi, G., 789
Franck, U. F., 250
Francke, B., 419
Franek, F., 976
Franey, R. J., 581
Frangione, B., 980, 1005, 1006
Frank, G. M., 239, 249
Frank, J., 84
Frank, N. H., 86
Frankel, D. M., 874, 883, 888
Frankel, F., 1047
Frankel, F. R., 874, 883, 888, 930
Frankel, S., 574
Franklin, E. C., 260, 273, 1005
Franklin, N. C., 833, 844, 919
Franklin, R. M., 416
Franko, E. A., 880
Fraser, D. R., 513, 514
Frederick, S. E., 390
Fredericq, P., 912
Fredrickson, D. S., 72
Freedman, R. B., 149, 150
Freeman, L. W., 580, 591
Freer, S. T., 683, 1026, 1027, 1028, 1029
Freidberg, E. C., 927
Freidberg, S. L., 743, 744
Freifelder, D., 900, 906, 911, 912, 919
Freifelder, D. R., 911
French, C. S., 178
French, T. C., 318, 319
Frenkel, R., 243
Frenkel, R. A., 251
Frenster, J. H., 304
Frerman, F. E., 34, 35
Fresco, J. R., 1055, 1062, 1063
Freundlich, M., 956, 960, 963
Frey, L., 879, 880
Frey-Wyssling, A., 162, 163
Fridkin, M., 1056
Fridovich, I., 672
Fried, J. H., 1084, 1088
Frieden, C., 653-96; 316, 333, 661, 662, 666, 667, 668, 670, 679, 685, 687, 688, 689
Frieden, E., 1047
Friedkin, M., 643
Friedland, J., 586
Friedman, D. L., 353, 756, 883
Friedman, L., 1080, 1081, 1082, 1084, 1087, 1088, 1090, 1091, 1094, 1095
Friedman, M., 293
Friedman, N., 859
Friedman, P. A., 775-810; 803, 804

Friedman, S., 472
Friedman, T., 813
Friedmann, B., 761
Friedmann, N., 761, 763
Friedner, S., 583
Friend, H. C., 535
Friesen, A., 647, 648
Friesen, A. J., 350
Friess, S. L., 316
Frings, C. S., 582
Fritsch, A., 901, 910
Fritz, H., 264
Fritz, P. J., 366
Froede, H. C., 133
Froehner, S., 425
Froehner, S. C., 279, 280, 281, 282, 288, 289
Frøholm, L. O., 453, 1063
Frohwein, Y. Z., 71
Frolova, L. Yu., 1059
Fromageot, C., 451
Fromageot, H. P. M., 800
Fromageot, P., 714, 721, 726, 778, 798, 801, 802, 804
Fronk, E., 718, 719, 725
Frontali, L., 798, 1059
Frosch, R. P., 87, 88
Froshøv, Ø., 454, 461
Fruton, J. S., 398, 402, 404
Fry, K. T., 201
Fry-Shafrir, I., 1055
Fuchs, E., 883, 884
Fudenberg, H. H., 979, 980, 1004, 1005, 1006
Fugmann, U., 120
Fujikawa, K., 453, 454, 455
Fujimoto, D., 291, 292
Fujimoto, W. Y., 817
Fujimura, S., 365
Fujino, Y., 68, 69
Fujioka, M., 814
Fujisawa, T., 1050
Fujita, N. J., 1001, 1005
Fujita, Y., 203, 204
Fukami, M. H., 119, 124, 146
Fuke, M., 297, 890, 930
Fukuda, R., 725
Fukuhara, M., 1056
Fukui, N., 787
Fukuma, I., 1056
Fukunaga, K., 404
Fukutome, H., 1052, 1053, 1058
Fuller, N. A., 32
Fuller, R. C., 198
Fuller, R. W., 473
Fuller, W., 410, 780, 781, 782, 1063
Fulton, C., 921, 929
Funk, F., 883
Furchgott, R. F., 480
Furesz, S., 798
Furlan, M., 299
Furlong, N. B., 864, 865, 866, 868
Furth, J. J., 719, 856
Furuichi, Y., 1054
Fuxe, K., 469
Fuzeau-Braesch, S., 1094

G

Gabay, S., 477
Gabelman, W. H., 189
Gabor, G., 95
Gabrieli, E. R., 584, 588
Gabrio, B. W., 812
Gadaleta, M. N., 798
Gaetani, S., 553
Gahan, L. C., 33, 34
Gahmberg, C. G., 74
Gaines, K., 860, 863
Gaitonde, M. K., 638, 641
Gal, A. E., 67, 71, 73
Galanos, C., 59
Galasinski, W., 362, 433, 434
Galeotti, T., 117
Galizzi, A., 1048
Gall, J. G., 916
Gall, W. E., 970, 993
Gallant, J., 731
Gallant, J. A., 845
Gallerani, R., 731
Galley, W. C., 90, 99, 103, 104
Galliard, T., 185
Gallo, R. C., 800, 1048
Gallwitz, D., 291, 292, 295, 303, 307, 365
Gally, J. A., 47, 859, 970, 979, 990, 997, 998, 1000, 1006, 1007
Galper, J. B., 420, 421, 1047
Gamache, E., 743, 745
Gambino, S. R., 582
Gamble, J. G., 798
Gamble, R. L., 244
Gancedo, C., 360
Gancedo, J. M., 366
Gander, J. E., 253
Ganesan, A. T., 874, 876, 887, 925
Gang, H., 470
Gangloff, J., 1054
Ganguli, M. C., 564
Ganguly, J., 502, 503, 505, 506, 507, 508, 562
Ganote, C. E., 383
Ganoza, M. C., 45, 436
Ganschow, R. E., 366
Gantt, R. R., 1055
Gan-Zvi, E., 211
Garbus, J., 144
Garcia, A. F., 206
Gardinier, J., 883, 926
Gardner, D. A., 362, 433, 434
Garel, J. P., 1046, 1047
Garel, J. R., 1026, 1028
Garen, A., 402, 404, 1057
Garfield, S. R., 588
Garfinkel, D., 13, 251
Garfinkel, L., 251
Garigiio, P., 721
Garland, P. B., 123, 124, 128
Garner, C. W., 425, 427
Garner, H. R., 452
Garnett, E. S., 583
Garnier, V. R., 366, 367
Garren, L. D., 364, 754, 758, 760, 761, 765
Garrett, H., 856
Gartland, W. J., 1056
Gärtner, Ch., 248
Gartner, T. K., 1057
Garvey, T. Q., 472
Garvin, E. V., 293
Gary, N. E., 536
Gascoyne, T., 553
Gasior, F., 432
Gassen, H. G., 1048
Gaston, L. K., 534, 545
Gates, V., 1022
Gatica, M., 1060, 1061
Gatt, S., 58, 67, 71, 72
Gause, G. G., 787, 788, 790
Gauss, D. H., 1045-78; 1045, 1053, 1055
Gautheron, D. C., 132
Gaver, R. C., 59, 61, 66
Gay, R. J., 576
Gazquez Martinez, I., 348, 350, 351
Gee, G., 614
Geer, J. C., 61
Geffen, L. B., 482, 484, 486, 487
Gefter, M. L., 871, 875, 901, 1047, 1050, 1056
Geiduschek, E. P., 655, 666, 712, 728, 800, 856, 879, 887, 890
Geison, R. L., 508
Gelfand, D. H., 883
Gell, P. G. H., 970, 1005
Geller, S., 508
Gellert, M., 780, 781, 785, 875, 876, 877, 885, 901, 902
Gelman, A. C., 588
Gelman-Sachs, A., 1005
Gelmuzzi, G., 117
Genano, G., 1047
Gennari, C., 520
Georg, R. H., 764
George, B., 584
George, D. J., 675
George, J., 834
George, P., 127, 1031, 1032
George, W. J., 752
Georgiev, G. P., 279, 304
Geraci, G., 328
Gerade, H. W., 578
Gerald, L., 1001, 1005

Gerber, B. R., 659
Gerber, D. A., 582
Gercken, G., 583
Gergely, J., 84
Gerhardt, B. P., 384
Gerig, J. T., 626
Gerlt, J. A., 662, 688
Germanyuk, Y. L., 1059
Gerner, E. W., 48
Gersch, N. F., 782
Gershey, E. L., 285, 290, 291, 293
Gershman, L. C., 674
Gershon, H., 970
Gersten, B. E., 392
Gersten, N., 813
Gerstl, B., 636, 638
Gesner, B. M., 75
Gest, H., 132
Gesteland, R. F., 419, 440
Getz, G., 923
Getz, M. J., 304
Gevers, W., 451, 453, 454, 455, 456, 461, 764
Gewirtz, G., 484, 490, 491
Gey, K. F., 471
Geyer, A., 1084
Ghalambor, M. A., 34
Ghelis, C., 1026, 1028
Ghent, R. L., 538
Ghosh, A., 238, 240, 247, 248
Ghosh, A. K., 142
Ghosh, B. B., 558
Ghosh, H. P., 411, 421
Ghosh, S., 729, 838, 839, 840
Ghuysen, J. M., 39
Giacobini, E., 594
Giannattasio, M., 1049
Giarman, N. J., 482
Gibbons, B. H., 339
Gibbons, I. R., 643
Gibbons, W. A., 612
Gibbs, J. H., 1052
Gibbs, M., 366, 367
Gibbs, S. P., 169, 189
Gibor, A., 187, 190
Gibson, D. M., 972, 973
Gibson, F., 944, 950
Gibson, J. E., 553
Gibson, Q. H., 126, 316, 317, 318, 328, 335, 337, 339, 658, 673, 682, 685
Giege, R., 1055
Gier, H. T., 560
Giese, A. C., 198
Giffin, T. B., 404
Gifford, E. D., 562
Gigg, J., 66
Gigg, R., 66
Gilbert, G. A., 657
Gilbert, J. M., 423, 424
Gilbert, L. I., 1080, 1081, 1082, 1085, 1088, 1094, 1095, 1096, 1097
Gilbert, W., 412, 436, 542, 862, 883, 887, 888, 921, 929, 932, 964
Gilbert, W. R., 816, 819
Gilden, R. V., 868
Giles, N. H., 945, 948
Gilham, P. T., 273, 1045, 1048
Gilhuus-Moe, C. C., 454
Gill, D. M., 433, 434
Gill, G. N., 364, 758, 761, 765
Gillam, I., 1046
Gilleland, M. J., 329
Gillespie, D., 722
Gillespie, J. S., 481
Gilliland, K. M., 61
Gillis, J. M., 383
Gilmor, R. G., 883
Gilman, A. G., 743, 745, 749
Gilman, N. W., 1085, 1088
Gilman-Sachs, A., 1004, 1005, 1006
Gilmore, R. A., 1057
Gilmour, R. S., 304, 305
Gilvarg, C., 397–408; 397, 398, 399, 401, 402, 403, 404, 405
Gin, A., 759
Gingery, R., 844, 845, 850, 919
Ginos, J. Z., 1017
Ginsberg, B., 875, 877, 885, 886, 887
Ginsberg, T., 1048, 1049
Ginsburg, A., 346, 358, 359, 671, 944
Ginsburg, V., 75
Giorgio, N. A., 668, 669, 675
Girard, M., 420
Giraudet, P., 578
Girshovich, A. S., 1054
Gissinger, F., 801
Gitler, C., 149
Gitlin, J., 75
Givan, A. L., 207
Givelber, H., 578
Giveon, D., 1050
Givol, D., 272, 273, 951
Glasel, J. A., 611
Glaser, D. A., 856, 882
Glaser, L., 32, 39, 348, 349, 662, 670, 675, 688
Glaser, M., 628
Glass, J. W., 308
Glauser, S. C., 1031, 1032
Glazer, A. N., 292, 679, 680, 1013, 1022
Glennaro, W., 584
Gleaner, G. G., 377, 378, 379, 380, 390
Glick, M. C., 47, 48, 49
Glick, R. E., 613, 614
Glickson, J. D., 615, 616, 617
Glowinski, J., 466, 480
Gniadowski, M., 801
Gnichtel, H., 92, 94
Go, A., 612
Goad, W. B., 657
Goaman, L. C. G., 228, 680, 682, 1025
Gochman, N., 578
Godfrey, J. E., 665
Godwin, R. W., 1063
Goebel, W., 266, 878, 901, 912, 921, 927, 928, 929, 931, 933, 934
Goebelsmann, U., 583
Goedheer, J. C., 198
Goehler, B., 1049
Goetzl, E. J., 273
Goff, C. G., 360, 725, 733
Gold, A. H., 352
Gold, E. R., 1005
Gold, L. M., 440, 441
Gold, M., 779
Gold, V., 398, 399
Goldberg, A. L., 492
Goldberg, A. R., 49, 75
Goldberg, D. M., 579, 581
Goldberg, I., 184, 211
Goldberg, I. H., 775–810; 427, 777, 779, 780, 781, 782, 785, 786, 787, 788, 789, 790, 791, 792, 794, 803, 804
Goldberg, N. D., 348, 352, 354, 355, 750, 751, 752
Goldberger, R. F., 951, 954, 955
Goldbeter, A., 252, 253
Goldblum, N., 800
Goldblum, R., 1005
Goldenberg, S. H., 264
Goldfinger, S., 818, 821
Goldfischer, S., 379, 380, 382, 383, 390, 391
Goldhaber, P., 273
Goldin, B. R., 668, 679
Goldin, H., 1046
Goldman, H., 300, 302, 613
Goldman, P., 400
Goldmark, P. J., 878
Goldsack, D. E., 318
Goldschmidt, A. D., 924
Goldsmith, K. L. G., 1005
Goldsmith, L., 300, 302
Goldstein, G., 580, 1059
Goldstein, I. J., 32, 49
Goldstein, J., 436, 437, 438, 440
Goldstein, L. S., 584
Goldstein, M., 469, 470, 472, 473, 487, 490
Goldthwait, D. A., 718, 719, 721, 726, 901, 910, 927
Goldwater, W. H., 15
Golenhofen, K., 249
Goller, H., 787
Golub, E. E., 457, 461
Gombos, G., 647, 648

Gomes, B., 477
Gómez-Puyou, A., 129
Gomirato, G., 592
Gomori, G., 381, 382
Gonano, F., 1050, 1051
Goncalves, J. M., 869
Gonzalez-Sastre, F., 636, 637
Good, N. E., 167, 180
Goodale, R. H., 574
Goodall, McC., 466, 472, 473
Goodchild, D. J., 178
Goodenough, U. W., 180
Goodman, D. B. P., 644
Goodman, D. S., 503, 504
Goodman, E. H. Jr., 761
Goodman, H. M., 417, 436, 717, 759, 761, 1048, 1057
Goodman, M., 613
Goodman, S. I., 580
Goodwin, B. C., 251, 253
Goodwin, C. W., 384, 388, 390
Goodwin, J. F., 582, 583
Goodwin, T. W., 161, 189, 198
Goor, R. S., 361, 362, 433, 434
Gopinathan, K. P., 665, 1057
Gordon, C. N., 901, 906, 913, 914
Gordon, E. K., 482
Gordon, J., 425, 426, 427, 432, 433, 435
Gordon, M. P., 187
Gordon, R., 488
Gordon, S., 636
Gorecki, M., 266, 272, 273
Gorfien, P. C., 593
Gorini, L., 965
Goris, J., 351, 352
Gorkin, V. Z., 477
Gorman, D. S., 208, 221
Gorman, J. E., 536, 537
Gorry, G. A., 584
Gorski, J., 542
Gorter, E., 171
Göschke, H., 582
Gosh, H. P., 1048, 1056
Gosh, K., 1056
Goto, T., 1047
Gots, J. S., 764, 819
Gottesman, M., 325
Gottesman, M. E., 844, 845, 848, 849, 919
Gottesman, S., 964
Gottschalk, A., 41
Gottschalk, E. M., 425, 431
Gould, H. J., 998
Gould, R. M., 1062
Goulding, A., 558
Goulian, M., 855-98; 859, 860, 861, 862, 863, 864, 865, 870, 879, 925
Gourevitch, A., 791
Govindjee, 178, 198, 200, 218
Govindjee, R., 200
Grace, J. T. Jr., 1050
Grachev, M. A., 1054
Graf, L., 74
Graft, J. A., 821
Graham, R. C., 386, 390, 391
Grahame-Smith, D. G., 743, 745, 754
Grandchamp, C., 917
Grangaud, R., 506
Granger, G. A., 1048
Grannis, G. F., 581, 583
Grant, D. M., 611
Grant, J. A., 970
Grant, J. L., 760
Grant, P. T., 460
Grantham, J. J., 763
Gratzer, W. B., 350
Grav, H. J., 145, 146
Graven, S. N., 238, 243, 244
Graves, D. J., 348, 349, 351, 352, 662, 670
Gray, B. F., 252
Gray, E., 452, 455
Gray, E. G., 636
Gray, G. D., 790
Gray, G. M., 58, 66, 70, 74
Gray, H. B., 904
Gray, J. P., 750
Gray, M. W., 1049
Gray, R. D., 337, 1025
Gray, W. R., 972, 973, 976, 979, 985, 1004, 1006, 1007
Greco, M., 798
Green, A. A., 346, 347, 755
Green, B., 187
Green, B. R., 187
Green, D. E., 116, 140, 144
Green, D. M., 1021
Green, F. A., 552
Green, I., 970
Green, J., 551, 568
Green, M., 834, 837, 868, 1058
Green, M. H., 721, 726
Green, N. M., 101, 265
Greenawalt, J. W., 135, 477
Greenbaum, A. L., 555
Greenberg, D. M., 520
Greenberg, J., 794
Greene, L. A., 645, 646
Greene, M. L., 67, 814, 816, 817, 818, 821
Greene, R., 866, 867
Greenes, R. A., 584
Greenfield, H., 549-72; 550, 553, 559, 560, 568
Greengard, O., 752, 753
Greengard, P., 294, 364, 365, 743, 748, 752, 757, 758, 765
Greening, E. O., 857
Greenough, W. B. III, 743, 744, 745
Greenshpan, H., 413, 414, 415
Greenstein, J. P., 11
Greenwood, C., 1031, 1032
Greer, J., 681, 1023
Gregerman, R. I., 582
Gregolin, C., 663
Gregoriadis, G., 553
Gregory, R. P. F., 175, 176
Gregson, N. A., 69
Grendel, F., 171
Grenson, M., 944, 950
Greville, G. D., 116, 118, 139, 140
Grey, H. M., 1005
Gribnau, A. G. M., 672
Griesemer, E. C., 477
Griessmann, H., 592
Griffin, A. C., 1058
Griffin, B. E., 1054
Griffin, C. E., 63
Griffith, D. D., 398
Griffith, J., 858
Griffith, J. H., 676, 684
Griffith, O. H., 227
Griffiths, E., 1060
Grillo, P. J., 657
Grimley, R. M., 800
Grindey, G. B., 579
Grinius, L. L., 127, 135, 142, 148
Grisolia, S., 293, 367, 677
Griss, W. E., 814
Grollman, A. P., 796, 797, 798
Gromet-Elhanan, Z., 136
Groner, Y., 404, 414, 1055
Gronowska-Senger, A., 504
Groot, G. S. P., 131, 132, 139, 141, 147, 148
Groppetti, A., 483
Gros, C., 951, 1058
Gros, D., 414
Gros, F., 413, 414, 415, 829, 834, 835, 841, 1058, 1060
Grosjean, H., 1052, 1058, 1059, 1060, 1061
Gross, E., 450, 456, 457
Gross, J., 869, 931
Gross, J. D., 834, 924, 928
Gross, M., 869, 931
Gross, N., 916, 917
Gross, N. J., 187, 890, 918, 930
Gross, S., 586
Gross, S. R., 944, 962
Gross, T. S., 956, 958, 962

Grossman, I. W., 383
Grossman, L., 859, 863, 1045, 1046
Grossman, L. I., 917
Grubb, R., 1005
Gruden, N., 519
Grunanger, P., 538
Grunau, J. A., 882
Grunberg, E., 796
Grünberger, D., 1056
Grunberg-Manago, M., 414, 415, 623, 1053, 1055, 1060
Gualerzi, C., 191
Guarino, A. J., 818, 819
Guarneros, G., 846, 920
Gubler, C. J., 558
Gueguen, P., 1056
Guerin-Dumartrait, E., 164
Guérineau, M., 917
Guéron, M., 86, 1051
Guerrieri, F., 135, 136
Guerrini, F., 848, 849, 919
Guest, G. M., 820
Guggenheim, K., 562, 563
Guha, A., 732, 733, 841, 890
Guidotti, G., 681
Guilbault, G. G., 574, 581
Guild, W. R., 887
Guillien, P., 970
Guillier, C. L., 587
Guillory, R. J., 145, 148
Guirgis, K., 578
Gul, B., 552
Gulik-Krzywicki, T., 171, 172, 173
Gunning, B. E. S., 184, 188
Gunsalus, I. C., 914, 924
Gunther, J. K., 1056
Gupta, A. S., 1049
Gupta, N. K., 423
Gurbaxani, S., 1085
Gurd, F. R. U., 1096
Gurley, L. R., 303
Guroff, G., 521
Gurskii, G. V., 781
Guschlbauer, W., 1063
Gussin, G. N., 436
Gutcho, S., 1046
Gutfreund, H., 315-44; 316, 317, 318, 320, 322, 324, 325, 329, 330, 331, 332, 335, 336, 338, 339, 676, 678, 683, 684, 1028, 1038
Guthrie, C., 412
Guthrie, J. P., 884
Guthrow, C. E. Jr., 644
Gutierrez, R. M., 293, 294, 295, 296
Gutman, A. B., 812, 820
Gutman, M., 123, 124
Gutmann, E. D., 879
Gutowsky, H. S., 611
Gutte, B., 1017
Guttmann, S., 429
Gwynne, J. T., 674
Gyldenholm, A. O., 182

H

Haab, W., 821
Haahti, E., 58
Haapala, D. K., 921
Haarhoff, K. N., 139
Haas, D. W., 148
Haas, M., 927
Habener, J. F., 885
Haber, E., 970, 974, 1004
Habib, Y. A., 578
Hachmann, J., 425
Hachtel, S. L., 951, 952
Hackenbrock, C. R., 244
Hacker, B., 1050, 1051
Hackett, P. B. Jr., 714
Haddock, B. A., 124
Hadjiolov, A. A., 778
Hadler, H. J., 244, 247
Haeckel, R., 242
Haefely, W., 483
Haegelin, B., 67
Haenni, A.-L., 415, 426, 427, 430
Haeusler, G., 483
Hageman, R. H., 384
Hagen, P., 471
Hager, G., 725, 733, 734
Häggendal, J., 467, 486
Hagihara, B., 118, 123
Hagmaier, V., 366
Hagopian, A., 48
Hahn, P., 147
Haider, M., 366, 554, 555
Hajós, F., 384, 390
Hakomori, S., 47, 49, 50, 51, 57, 59, 60, 63, 64, 65, 74, 75
Halaris, A., 636, 637, 641
Halberg, F., 237
Halbwachs, H., 713
Hale, C. W., 461
Hales, C. N., 763
Haley, E. E., 400, 401
Halford, S. E., 323, 325
Haljasmaa, Ö., 478
Halkerston, I. D., 754
Hall, B. D., 273, 725, 733, 734
Hall, C. E., 104
Hall, F. F., 580, 581
Hall, J. B., 453
Hall, M. D., 411, 1063
Hall, P. F., 760
Hall, R. H., 1049, 1050, 1055
Hall, T. C., 191
Hall, Z. W., 875
Halle, W. L., 467
Hallick, L., 841, 883
Hallick, R. B., 515, 523
Halliday, W. J., 460
Hallier, U. W., 191
Hallpike, J. F., 642
Halperin, M. L., 139
Halpern, B. P., 504, 505
Halvorson, H. O., 435, 1064
Ham, N. S., 612
Hamada, K., 958
Hamadah, K., 746
Hamana, K., 281
Hamberger, B., 465, 466
Hamberger, L., 764
Hamburger, V., 644
Hameister, H., 362
Hamelink, M. L., 582
Hamers, R., 1005, 1006
Hamers-Casterman, C., 1005, 1006
Hamilton, C. L., 227, 229
Hamilton, D. N. H., 481
Hamilton, J. K., 32
Hamilton, J. W., 524
Hamilton, L. D., 780, 781, 782
Hamilton, R. H., 189
Hamilton, T. H., 304
Hamkalo, B. A., 916
Hamm, L., 877, 885, 887
Hammer, W., 487
Hämmerling, G., 31
Hammermeister, K. E., 354, 748
Hammes, G. G., 316, 318, 319, 323, 324, 326, 338, 1014
Hammond, B. R., 1028
Hammond, G. S., 88
Hammond, K. B., 580
Hamori, E., 319
Hampel, A., 1062, 1063
Han, M., 1032
Hanahan, D. J., 1096
Hanaoka, M., 1001, 1005
Hanawalt, P. C., 187, 870, 883, 884, 885, 887, 925, 928
Hancher, C. W., 1046
Hancock, D. J., 149, 150
Hancock, D. K., 664
Hancock, R., 303
Hancock, R. L., 1049, 1051
Handa, S., 63
Handler, J. S., 743, 745, 762, 763
Handler, P., 403
Handschumacher, R. E., 814
Hane, M. W., 856
Hanes, D. J., 581
Hanker, J. S., 381, 383, 384, 385, 386, 388, 389, 390
Hanly, C., 471
Hannah, J., 614, 628
Hannibal, M. J., 378
Hannig, K., 594
Hanová, E., 147
Hansbury, E., 860, 864
Hansen, L. G., 583
Hansen, R. E., 126

Hansford, R. G., 140, 351
Hanson, E. A., 169, 174
Hanson, L. E., 564
Hanstein, W. G., 122
Hanzmann, E., 1081, 1085, 1088, 1095
Hapgood, R., 1, 3
Happ, G. M., 535, 545
Happe, J. A., 625
Hara, K., 724
Harada, F., 1048, 1049, 1050, 1056
Harada, K., 679
Harboe, M., 1005
Harbury, H. A., 1029, 1031
Hardesty, B., 420, 422, 432, 433
Harding, C., 536
Hardman, J. G., 580, 746, 750, 751
Hardy, P. H. Jr., 392
Hare, M. L., 475
Hargreaves, J. A., 578
Hargrove, E., 841, 890
Harley, E. H., 791
Harmeyer, J., 524
Harmon, L. D., 238
Harper, A. E., 558, 560, 561, 764
Harrill, I., 562
Harrington, W. F., 95, 101, 404, 657, 665
Harris, C. I., 293
Harris, C. L., 1050
Harris, D. O., 1020
Harris, E. D., 47
Harris, E. J., 120, 127, 135, 140, 142, 147, 244, 245
Harris, E. K., 590
Harris, J. I., 191, 402, 684
Harris, R. A., 116, 144
Harris, S. E., 73
Harris, W., 365
Harris, W. M., 189
Harrison, C. E. Jr., 553
Harrison, D. E. F., 247, 248, 251
Harrison, H. C., 518, 519, 520, 521, 522, 764
Harrison, H. E., 518, 519, 520, 521, 522, 764
Harrison, J. E., 524
Hart, E. B., 560
Hart, L. G., 796
Hart, R. G., 298
Hartley, B. S., 411, 674, 683, 1026, 1027, 1028, 1058, 1061
Hartley, J. R., 584
Hartman, B. K., 490
Hartmann, G., 715, 716, 721, 722, 726, 785, 787, 788, 789, 790, 796, 798, 799, 800, 839
Hartmann, J. F., 49
Hartmann, R. C., 743, 744
Hartree, E. F., 126, 390
Hartroft, P., 560
Hartsook, E. W., 559, 561
Hartsuck, J. A., 682
Hartwell, L. H., 957
Harvey, R. A., 669, 675
Harwood, J. P., 354, 743, 744
Harwood, S. J., 859, 861, 863
Harzer, K., 58
Haschemeyer, R. H., 656, 664
Hasegawa, M., 779, 788
Hasegawa, S., 365, 787
Haselkorn, R., 187, 712, 728, 798, 800
Hashim, G. A., 639, 640
Hashimoto, S., 1048, 1056, 1059
Hasinoff, C. W., 641, 642
Haskell, E. H., 886, 929
Haslam, J. L., 338
Haslam, J. M., 118
Haslett, G. W., 290, 291, 293, 1047
Hass, D. J., 1035, 1036
Hassall, H., 582
Hasselbach, W., 149
Hasselblatt, A., 748
Hasshti, E. O. A., 513
Hassinen, I., 118
Hastings, A. B., 814
Hastings, J. W., 249
Hata, T., 794
Hatefi, Y., 122, 123
Hatfield, G. W., 955, 956, 957
Hathaway, A., 931
Hathaway, G., 676, 684, 1036, 1038
Hathaway, G. M., 665, 678
Hathaway, J. A., 128, 583, 756
Hatanaka, M., 868
Hatch, M. D., 179, 197, 367
Hatfield, G. W., 675, 687
Hattman, S., 419, 425
Hatton, M. W. C., 175, 176, 177
Haugaard, E. S., 139
Haugaard, N., 139
Haugland, R. P., 85, 87, 88, 89, 91, 95, 102, 625
Haugli, F., 841, 890
Haurowitz, F., 228
Hauser, G., 68, 69
Hausmann, R., 888
Haussler, M. R., 513, 516, 517, 523, 526
Haux, P., 582
Havel, R. J., 565
Havir, E. A., 677
Havsteen, B. R., 1032
Hawk, P. B., 558, 560, 562
Hawke, J. C., 185
Hawkins, R. A., 821
Hawthorne, D. C., 440, 1057
Hawthorne, J. N., 65
Hay, J., 1054
Hay, J. B., 66, 70
Hay, J. D., 61
Hayaishi, O., 346, 361, 362, 365, 433, 434, 665, 743
Hayakawa, T., 581
Hayano, M., 472
Hayashi, A., 61
Hayashi, H., 280, 283, 285, 286, 674, 1047, 1052, 1057, 1058
Hayashi, M., 273, 883, 901, 905
Hayashi, M. N., 905
Hayashi, T., 293, 295, 296
Hayashi, Y., 1052
Hayatsu, H., 1055
Haydon, A. J., 280
Haydon, G., 386
Hayes, F. N., 715, 719, 869
Hayes, J. D., 190
Hayes, W., 828
Haynes, D. H., 613
Haynes, R. C. Jr., 743, 745, 760
Hays, R. L., 505
Hayward, W. S., 721, 726
Haywood, A. M., 777
Hazen, E. E. Jr., 1032, 1033, 1035
Hearn, R. P., 1015
Hearon, J. Z., 252
Hearst, J. E., 279, 304, 904, 915
Heath, E. C., 29-56; 30, 31, 32, 34, 35
Heber, U. W., 191, 192
Hecht, S. M., 1049
Hechter, O., 743, 744, 745, 754, 759, 761, 762, 763
Heck, H. d'A., 329, 331
Hecker, E., 536, 543
Hedgcoth, C., 1049, 1055
Hedman, R., 118
Hedrick, J. L., 348, 670, 674
Hegsted, D. M., 558, 560
Heijnsbergen, S., 1094
Heil, A., 715, 717
Heilmeyer, L. Jr., 358
Heilporn, V., 187
Heimberg, K. W., 149
Heimberg, M., 758
Heimer, E. P., 859
Heine, J. W., 52
Heinemann, B., 791, 795
Heinemann, S. F., 829, 841
Heinen, W., 122
Heiney, R. E., 84
Heinmets, F., 251

Heinonen, J., 1061
Heinrich, J., 1055
Heinrich, P. C., 358, 360
Heinrikson, R. L., 358
Heise, R., 470
Heiserman, J., 581
Heitkamp, D. H., 383
Heitz, J. R., 102
Hejno, K., 1081, 1082, 1083, 1084, 1085, 1089, 1090, 1091, 1092, 1094, 1095, 1096
Helbock, H. J., 518
Heldt, H. W., 128, 141, 144, 147
Hélène, C., 1051, 1053, 1058, 1060
Helgeson, J. P., 1049
Helinski, D. R., 899-942; 871, 878, 881, 901, 904, 905, 906, 907, 908, 909, 911, 912, 914, 921, 922, 924, 926, 927, 928, 931, 932, 933
Helle, K., 483, 484
Helleiner, C. W., 882
Hellendoorn, H. B. A., 578
Heller, A., 492
Heller, E., 800
Heller, G., 432, 433
Heller, M., 71
Hellerqvist, C. G., 32, 60
Hellman, A., 1048
Hellman, K. B., 1048
Hellman, W., 901
Helmcamp, G. K., 609
Helminen, H. J., 390
Helmreich, E., 348, 349, 350, 351, 354, 662, 670, 688
Helmstetter, C., 926
Hemmerich, P., 116, 335
Hempel, K., 290, 292
Hempstead, P. G., 928
Hendee, E. D., 361
Henderson, E. J., 947
Henderson, J. F., 814, 815, 816, 817, 818, 819, 821, 822
Henderson, L. J., 27
Henderson, M., 588
Henderson, P. J. F., 141
Henderson, R., 683, 1026, 1027, 1029
Henderson, R. F., 667
Henderson, R. W., 1031
Henderson, T. R., 667
Hendler, S., 611, 1056
Henes, C., 426, 432, 1046, 1057
Henion, W. F., 750
Henn, S. W., 657, 666
Hennig, S. B., 358, 359
Henning, R., 67
Henning, U., 1057
Henninger, M. D., 215, 216
Henninger, R. W., 558
Henningsen, I., 856, 865
Henningsen, K. W., 189
Henry, J. B., 574, 577
Henry, J. P., 491
Henry, N., 553
Henry, R. J., 574
Henry, T. J., 882
Henry, W., 227
Henson, P., 302
Henzell, R. F., 537
Hepner, G. W., 522
Hepp, D., 748
Hepp, K. D., 746, 747
Heppel, L. A., 264, 401, 1035
Hepton, A., 163
Herbert, E., 420
Hercules, D. M., 90
Hercules, K., 877
Herczeg, B. E., 128
Herda, G., 1084
Herman, R. K., 911
Hermier, C., 743, 745
Hermoso, J. M., 716
Hernandez, T(eme) P., 189
Hernandez, T(ravis) P., 189
Hernandez, W., 44
Herries, D. G., 325
Herriott, S. T., 863, 864, 865
Herrlich, P., 440, 732, 733, 1046
Herrmann, F., 192
Herrmann, J., 583
Herrmann, R. G., 188
Hers, H. G., 73, 348, 351, 352, 353, 354, 355, 368, 761
Herschkowitz-Kaufmann, M., 252, 253
Herschman, H. R., 647, 912
Hersh, L. S., 262
Hershey, A. D., 828, 900, 901, 905, 910
Hershey, J. W. B., 413, 414, 416
Hershko, A., 813, 814, 820, 821, 822
Hershko, C., 814
Herskowitz, I., 841
Hertel, R., 190
Hertman, I., 834
Hertting, G., 478, 480, 481, 485, 487
Hertzman, E., 354
Herzberg, M., 413, 414, 415, 729
Herzenberg, L(eonard) A., 1005
Herzenberg, L(eonore) A., 1005
Herzfeld, F., 798
Heslop-Harrison, J., 167, 172
Hess, B., 237-58; 238, 239, 240, 241, 242, 243, 247, 248, 251, 317, 339, 340
Hess, E. L., 655
Hess, G. P., 1013-44; 326, 1017, 1021, 1022, 1026, 1028, 1031, 1032
Hess, M., 976
Hess, S. M., 471
Heston, W. E., 366
Hettinger, T. P., 456
Hewitt, P. H., 536
Heyman, T., 1058
Heyn, G., 67
Heywood, S. M., 424
Hickenbottom, J. P., 348, 350, 351, 353, 365, 755, 756
Hicks, G. P., 564
Hicks, R. M., 381, 382, 390
Hickson, F. T., 911, 912, 922
Hidaka, T., 1094
Hierowski, M., 427
Higa, A., 778
Higa, S., 398, 399
Higaki, M., 514
Higashi, T., 132
Higgins, J., 239, 240, 241, 242, 243, 247, 251, 254
Higuchi, S., 1052
Hikichi, K., 779
Hildebrand, J., 69
Hilderbrand, D. C., 578
Hill, D. L., 816, 818, 819
Hill, R., 208, 209, 384
Hill, R. D., 133
Hill, T. L., 410
Hillarp, N.-A., 466, 481, 482
Hille, M. B., 413, 414
Hills, H. G., 535
Hilschmann, N., 973, 976, 979, 985
Himmelspach, K., 59
Himoe, A., 1028
Hincenbergs, I., 560, 568
Hind, G., 198, 199, 208, 211, 213
Hindley, J., 417, 418
Hingerty, D., 578
Hinkle, D. C., 724, 725, 726
Hinkle, P., 126, 134
Hinrichs, R., 248
Hinterberger, H., 538
Hintze, Ch., 1094
Hioco, D., 522
Hiraga, S., 956, 958, 962, 1062
Hirahashi, T., 859, 878
Hirata, M., 665, 743
Hirose, S., 403, 405
Hirota, Y., 870, 872, 873, 883, 884, 928, 931
Hirs, C. H. W., 679
Hirsch, P. F., 743, 745
Hirsch, R., 1055

Hirschbein, L., 722, 724
Hirschberg, C. B., 61
Hirschhorn, K., 593
Hirschhorn, R., 593
Hirschmann, P. N., 522
Hirschmann, R., 1017
Hirsh, D. L., 1057, 1058, 1061
Hirshfeld, H., 638
Hirshfield, I. N., 958, 961, 1058
Hirst, E., 302
Hirt, B., 890, 914
Hirt, J., 560
Hirvisalo, E. L., 61
Hiscoe, H. B., 485
Hishizawa, T., 1057
Hitchings, G. H., 412
Hitchman, A. J. W., 524
Hittelman, K. J., 145, 146
Hizukuri, S., 352, 353
Hjerten, S., 260
Hladik, J., 552
Hnilica, L. S., 279, 280, 281, 282, 283, 285, 286, 293, 294, 295, 296, 299, 300, 303, 304, 305, 306, 307
Ho, C., 230, 231, 232, 339, 615, 619, 680
Ho, J. Y. C., 84
Ho, R. J., 743, 744, 746, 748, 759
Ho, W., 68
Hoarau, A., 183
Hoard, D. E., 869
Hoard, J. L., 1025
Hoare, T. A., 304
Hobbs, J. F., 681
Hoch, F., 199
Hoch, G., 86, 87, 200, 206, 207
Hoch, H., 578
Hoch-Ligeti, C., 574
Hochstrasser, R. M., 1031, 1032
Hodes, M. E., 867
Hodge, A. J., 180
Hodgins, D. S., 675
Hodgkin, D. C., 612
Hodgson, A., 410
Hodson, S., 382
Hoedemaeker, P. J., 392
Hoefnagel, D., 814, 816, 817
Hoek, J. B., 139
Hoekstra, W. G., 559, 569
Hoerman, K. C., 1051, 1052
Hofer, H. W., 366
Höfer, M. P., 243, 245
Hoffman, B. M., 1053
Hoffman, E. P., 956
Hoffman, H., 645, 646
Hoffman, H. P., 917
Hoffman, J. L., 1058, 1060
Hoffman, W., 1085, 1088
Hoffmann, M., 747
Hoffmann-Berling, H., 927
Hofmann, K., 272, 1017, 1018
Hofmann, T., 1026, 1028, 1031
Hofschneider, P. H., 419, 882, 901, 929
Hogan, B. L. M., 420
Högenauer, G., 1056
Hogg, N. M., 979, 980, 1005
Hogness, D. S., 403, 675
Hohorst, H. J., 145, 146
Hohl, H. R., 163
Hohmann, P., 303
Hohn, B., 882, 883, 932
Hökfelt, T., 467, 469
Holbrook, E. R., 1005
Holbrook, J. J., 331, 1036
Holdsworth, E. S., 518, 519, 526
Holland, J. J., 1048
Hollander, P., 137
Hollaway, M. R., 324
Holldorf, A., 246
Hollemans, H. J. G., 583
Hollenberg, C. P., 118, 917, 918, 919
Holler, E., 326, 1021, 1022
Höller, M., 478
Hollerman, C. E., 49
Holley, R. W., 1045, 1048, 1054, 1057
Hollis, D. P., 609, 610, 626
Hollocher, T., 607, 610
Holloszy, J. O., 117
Holloway, P. W., 457
Holly, F. W., 1017
Holmes, L. G., 89, 96, 98
Holmes, P. A., 352
Holmsen, H., 815
Holohan, P. D., 263, 266
Holroyd, R. A., 308
Holt, B. D., 273
Holt, C. E., 918
Holt, J. W., 1055
Holt, S. J., 379, 381, 382, 390
Holt, T. K. H., 1097
Holthaus, L. M., 1081, 1082, 1088, 1094
Holtz, P., 470, 471
Holtzer, A., 655, 666
Holzer, H., 345-74; 248, 346, 358, 359, 360, 365, 366, 581, 944
Homann, P. H., 179, 180, 219
Homer, R. B., 779
Hommes, F. A., 247, 248
Honda, F., 747
Honda, H., 1062
Honeycutt, R. C., 205
Honikel, K., 722, 785, 787, 788, 789, 790, 796, 798, 799
Honjo, T., 346, 361, 362, 365, 433, 434
Hoober, J. K., 181, 185
Hood, L., 969-1012; 47, 970, 972, 973, 974, 976, 979, 985, 993, 996, 997, 998, 1004, 1005, 1006, 1007
Hopfer, U., 143
Hopkins, N., 838, 839
Höpner, T., 362
Hopper, J. E., 980, 1006
Hopsu-Havu, V. K., 390
Hopwood, D., 378, 379, 381
Hopwood, D. A., 909, 958, 961
Horecker, B. L., 366
Horgan, D. J., 122, 123, 664
Hori, M., 795, 796
Hori, T., 61
Horikoshi, K., 402
Horinishi, H., 308, 364, 1062
Horio, T., 116, 198
Horiuchi, T., 838
Horlington, M., 817
Horn, P. C., 958, 961
Horning, E. C., 60, 513, 583
Horning, M. G., 60, 583
Horowitz, J., 1055
Horowitz, M. G., 84
Horowitz, P., 665
Horsley, W. J., 611
Horsting, M., 513, 514, 516
Horstman, L. L., 131
Horton, C. A., 573-604
Horton, H. R., 149
Horvath, S. M., 580
Horwitz, A. F., 229, 230
Horwitz, S. B., 796, 797, 798
Hosemann, R., 168, 174
Hosie, R. J. A., 481
Hoskins, D. D., 743, 745
Hosoda, J., 876, 884, 885
Hosoi, K., 351, 355
Hosoya, N., 524
Hotta, Y., 919
Hou, C. T., 458
Houghton, C. I., 506
Hougie, C., 574
Housman, D., 423
Houston, B. A., 748, 749
Hout, A., 878
Houts, G. E., 869
Hove, E. L., 507
Howard, A. J., 791, 795
Howard, G. A., 420
Howard, R. L., 122
Howard-Flanders, P., 834, 844, 870
Howe, C., 51
Howe, C. W., 273
Howell, J. I., 510
Howell, J. M., 505, 506,

507, 562
Howell, R. R., 814
Howell, R. W., 592
Howell, S. H., 166, 171
Hradec, J., 1060
Hradecna, Z., 829
Hruska, F. E., 609, 610, 779
Hsia, D. Y. Y., 593
Hsiao, C., 1097
Hsiao, T. M., 1097
Hsie, A., 752, 753, 766
Hsu, J. M., 552
Hsu, L. L., 356
Hsu, W.-T., 419, 1048
Huang, A. S., 52
Huang, C. Y., 333, 348, 349, 662, 667, 670
Huang, H. S., 503, 504
Huang, P. C., 304, 998
Huang, R. C. C., 281, 298, 300, 304, 365
Huang, R. T. C., 61
Hubbell, R. B., 557, 559, 560, 562
Huberman, J. A., 857, 858, 859, 863, 883, 885, 888, 890, 915
Hucho, F., 355, 356
Hudson, B., 901, 904, 906, 917, 933
Hudson, P. B., 812
Hudson, V. W., 1097
Huennekens, F. M., 122, 812
Hughes, A., 642
Hughes, R. C., 349
Hughes, S. D., 752, 753, 766
Hughes, S. J., 1005
Hughes, W. L. Jr., 19, 20
Hugon, J., 382, 390
Huh, T. Y., 882
Hummel, H., 539
Humphreys, J. M., 1060
Humphries, S. K., 508
Hung, P. P., 1048
Hunkeller, F. L., 350, 351, 354
Hunneman, D. H., 60
Hunt, B. J., 593
Hunt, H. B., 5
Hunt, J. A., 415
Hunt, J. M., 473
Hunt, W. L., 1005
Hunter, C., 486
Hunter, D., 574
Hunter, D. T., 577, 581, 583
Hunter, F. E. Jr., 133
Hunter, G. R., 245
Hunter, R. L., 392
Hunter, T., 422, 423
Hunziker, F., 512
Hurd, S. S., 348, 351
Hurley, L. S., 551, 560, 563
Hurst, A., 452, 457
Hurst, D. J., 542
Hurst, J. K., 338
Hurst, R. E., 318
Hurwitz, J., 32, 714, 715, 718, 719, 720, 732, 778, 779, 875, 877, 885, 886, 887, 901, 927, 1035
Hurwitz, S., 518, 519, 525
Huston, R. B., 350, 351, 353, 354
Hutchins, J. E., 722, 799
Hutchison, C. A. III, 882
Huttunen, J. K., 755, 759
Hutzler, J., 593
Hwang, L. H., 947
Hydén, H., 592, 594, 647
Hyman, R. W., 728, 733, 778, 780, 785
Hynie, S., 759
Hyodo, M., 885

I

Iaccarino, M., 1060
Ibbott, F. A., 574, 592
Ibsen, K.-H., 243
Ibuki, F., 432
Ichida, T., 578
Ichikawa, Y., 63
Ide, M., 743
Ide, T., 273
Igarashi, K., 439, 722, 723, 798, 1058
Igarashi, R. T., 1047
Igarashi, S. J., 412, 1055
Igo-Kemenes, T., 1055
Ihler, G., 920
Ihnat, M., 626
Iida, S., 778
Ikan, R., 540
Ikeda, H., 910, 913, 914, 921, 922, 932
Ikeda, M., 469, 488, 491
Ikegami, H., 1058
Ikemura, T., 1058
Ilan, J(oseph), 1096, 1097
Ilan, J(udith), 1096, 1097
Imae, Y., 872, 887
Imahori, K., 1053, 1060
Imaizumi, R., 484
Imam, M. K., 189
Imamura, H., 747
Imoto, T., 1016
Imura, N., 1046, 1056
Inagaki, A., 665, 779, 788
Inamine, E., 460
Inbar, D., 1055
Ingar, M., 49
Ingersoll, R. J., 524, 525
Ingle, J., 187, 190
Ingraham, L., 900, 910
Ingram, G. S., 578
Ingram, V. M., 1048, 1054
Inman, F. P., 1001, 1005
Inman, J. K., 262, 1001, 1005, 1018
Inman, R. B., 888, 889, 890, 931
Inokuchi, H., 838
Inoue, A., 291, 292
Inoue, H., 61
Inoue, N., 1059
Inoue, S., 297
Inoue, Y., 1053, 1055
Inouye, M., 884
Inscoe, J. K., 474, 479
Inselburg, J., 890, 930
Inuzuka, M., 913, 914
Iqbal, K., 1058
Irias, J. J., 677
Irie, S., 1055
Irvin, J. L., 885, 886
Irving, J. T., 520
Irwin, W. E., 40
Isaacs, L. N., 834, 837, 878
Isaev, P. I., 127, 136
Isemura, S., 1046
Isham, K. R., 961
Ishida, M. R., 187
Ishida, N., 450
Ishida, T., 1051, 1056
Ishihama, A., 714, 715, 718, 725
Ishii, S., 384, 390
Ishii, T., 759
Ishikawa, E., 750
Ishikawa, K., 280, 283, 285, 286
Ishikawa, S., 750, 878
Ishikura, H., 1046, 1049
Ishitsuka, H., 439
Ishizuka, I., 65
Issaly, A. S., 951
Issaly, I. M., 951
Isselbacher, K. J., 513, 593
Itai, Y., 365
Itasaka, O., 61
Ito, J., 947, 948
Ito, K., 803, 956, 958, 962, 1062
Ito, M., 455
Ito, S., 68, 69, 392
Ito, T., 148
Itoh, H., 453, 581
Ivanov, V. T., 612, 613
Ivanova, O. I., 1054
Iversen, L. L., 466, 467, 471, 474, 479, 480, 481, 483, 636
Ives, D. H., 249
Iwai, K., 280, 281, 282, 283, 285, 293, 295, 296
Iwama, Y., 879
Iwamura, H., 1049
Iwamura, T., 187
Iwamura, Y., 867
Iwanami, Y., 1051
Iwasaki, K., 413, 414
Iwashima, A., 867
Iwatsubo, M., 334, 667

Iwatsuki, N., 665, 876, 884
Iwaya, M., 870, 883, 887, 927
Iyer, V. N., 793, 794, 887
Izak, G., 820, 821
Izawa, S., 167, 180

J

Jaakonmäki, L., 58
Jackson, J., 868
Jackson, J. B., 134, 136
Jackson, J. F., 864
Jackson, J. J., 640
Jackson, M. F., 951
Jackson, R., 422, 423
Jackson, S., 669
Jackson, V., 300, 883
Jackson, W. A., 198
Jackson, W. G., 458
Jackson, W. J. H., 660, 661
Jackson, W. M., 1015
Jacob, F., 828, 832, 833, 835, 836, 837, 838, 841, 845, 870, 872, 873, 883, 884, 887, 900, 901, 909, 910, 911, 919, 920, 921, 922, 924, 925, 926, 928, 929, 931, 932, 964, 1023
Jacob, H. S., 552
Jacob, M., 558
Jacob, S. T., 801
Jacobs, H., 141
Jacobs, H. S., 582
Jacobs, W. L. W., 583
Jacobsen, C. B., 817
Jacobsen, M., 636
Jacobsen, N. O., 383
Jacobs-Lorena, M., 423
Jacobson, A., 722
Jacobson, B., 621
Jacobson, K. B., 1056, 1059
Jacobson, M., 534, 536, 537, 544, 1049, 1055, 1092
Jacoby, G. A., 965
Jacquemin-Sablon, A., 927
Jacquillat, C., 789
Jaeger, R. J., 592
Jaenicke, L., 367
Jaenicke, R., 673
Jaenisch, R., 901
Jaffé, W. G., 559
Jagendorf, A. T., 136, 142, 198, 199, 200
Jagger, W. S., 135
Jagoe, M. P., 184
Jaim-Etcheverry, G., 482
Jain, S. C., 779, 786
Jallon, J. M., 334, 667
James, H. L., 1058, 1060
James, S., 1028, 1029
James, T. L., 624, 1053
Jamieson, J. D., 46, 47
Janda, H.-G., 191
Janeček, J., 747, 749, 753
Jangaard, N. O., 128
Janigan, D. T., 378
Janin, J., 334, 338, 675, 951
Jann, B., 33
Jann, K., 30, 31, 33
Jansen, B. C. P., 520
Jansen, E. F., 1028
Jansen, V., 817
Jansonius, J. N., 266, 324
Jansz, H. S., 901, 902, 906, 914
Jard, S., 364
Jardetzky, C. D., 607, 609, 610, 611, 614, 615, 617, 624, 628
Jardetzky, O., 605-34; 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 620, 621, 622, 624, 625, 626, 628
Jarolim, V., 1081, 1082, 1083, 1084, 1085, 1089, 1090, 1091, 1092, 1094, 1095, 1096
Jarrott, B., 471, 474, 479
Jarvis, B., 450, 456, 457
Jarvis, J. M., 973
Jasaitis, A. A., 143
Jaskunas, S. R., 1063
Jaton, J. C., 974, 1004
Jatzkewitz, H., 61, 62, 66, 72, 73
Jaume, F., 281
Jeanloz, R. W., 47, 64, 74
Jeannin, G., 1049
Jeanrenaud, B., 746, 759
Jeanteur, P., 885
Jeffcoat, J., 450, 456
Jefferson, R. N., 534, 545
Jelinek, M., 791
Jellum, E., 270
Jencks, W. P., 664, 1018, 1019
Jeng, Y. C., 883
Jenkins, M., 555, 879
Jenkins, M. D., 867
Jennings, W. H., 175, 177
Jensen, E. V., 542
Jensen, R. H., 300, 302, 306
Jeppesen, P. G. N., 418, 419
Jerez, C., 426, 432, 1057
Jergil, B., 293, 294, 295, 296, 364, 365
Jericijo, M., 299
Jerina, D. M., 259, 260
Jerne, N. K., 987
Jerry, L. M., 1005
Jesensky, C., 1049
Jespersen, N. D., 583
Jessup, R., 743, 744, 759
Jewell, B. R., 249
Jirgensons, B., 300
Joel, C. D., 145, 146, 743, 744, 745, 758
Joel, P. B., 791, 792, 803, 804
Joffe, S., 626
Joh, T., 469, 472, 490
Johansson, A., 1050
Johansson, K.-E., 1050
John, K. V., 552
Johns, E. W., 280, 281, 282, 289, 299, 300, 303, 304, 306
Johns, H. E., 1052, 1053
Johnson, A., 281
Johnson, A. W., 305
Johnson, B. C., 507, 508, 510, 511
Johnson, C. A., 47
Johnson, C. D., 411, 1063
Johnson, D., 129, 244
Johnson, E. M., 910
Johnson, G., 293, 294, 295
Johnson, G. A., 473
Johnson, G. S., 676
Johnson, H. S., 367
Johnson, J., 486
Johnson, J. H., 135
Johnson, J. L., 458, 1055
Johnson, L. N., 683
Johnson, P., 57, 293
Johnson, R. A., 580
Johnson, T. C., 1061
Johnson, T. W., 627
Johnson, W. F., 586, 591
Johnson, W. S., 1085, 1088
Johnston, J., 919
Johnston, N. C., 541
Johnstone, J. H., 583
Johnstone, R. M., 754
Joklik, W. K., 420
Joliot, P., 218
Jolley, R. L., 586, 591, 665
Jolly, W., 144
Joly, P., 1094
Jonason, J., 487
Jones, A. E., 553
Jones, A. J., 611
Jones, G. H., 39
Jones, I. G., 918
Jones, J. D., 592
Jones, J. H., 558, 559, 560
Jones, M. E., 673
Jones, O. W., 721, 728, 814
Jones, O. W. Jr., 721
Jones, P., 580
Jones, R. T., 230, 231, 232
Jones, W. A., 537
Jordan, D. O., 782
Jordan, J., 283, 583
Jordan, J. J., 280, 283, 285, 286
Jordan, P., 84
Jordan, W. J., 580
Jørgensen, P. L., 383
Jorgensen, S., 821
Jorgensen, S. E., 877

Jornvall, H., 684
Josephs, R., 657, 665, 666, 685
Josephson, B., 583
Joslin, F. G., 1005
Jost, A., 489
Jost, J.-P., 741-74; 752, 753, 761, 766, 944, 1055
Jost, M. C., 627
Jost, P., 227
Joubert, F. J., 614
Jovin, T. M., 273, 274, 674, 857, 863, 864, 865, 866, 871, 875, 901
Jowsey, J., 524
Joyner, A., 829, 832, 834, 835, 842, 878
Joynson, M. A., 683
Judson, G., 594
Jue, D. L., 581
Jukes, T. H., 202, 417, 1045, 1056
Juneja, H. S., 505, 506, 562
Jung, D. H., 579, 583
Jungblut, P. W., 542
Junge, W., 134
Jungmann, R. A., 281
Jungner, G., 588
Juntti, K., 131
Jurásek, L., 404
Jutisz, M., 743, 745

K

Kääriäinen, L., 74
Kabat, D., 420
Kabat, H. F., 590
Kabat, S., 998
Kadohama, N., 859
Kaempfer, R., 412, 420
Kaempfer, R. O. R., 412, 420
Kageyama, M., 779, 788
Kahil, M. E., 551
Kahle, P., 1051
Kahn, A., 384
Kahn, P. L., 912, 919, 924
Kahn, R. H., 392
Kaiser, A. D., 832, 835, 836, 840, 843, 901, 902, 910, 913, 919, 920, 923, 927
Kaiser, I. I., 1046, 1055, 1056
Kaiser, R., 586
Kaisseling, K. E., 542, 543
Kaji, A., 364, 430, 439, 1055, 1056
Kaji, H., 364
Kajikawa, K., 484
Kajiwara, K., 795
Kakamura, A., 913
Kakefuda, T., 883, 884
Kakiuchi, S., 743
Kalckar, H. M., 75
Kalderon, M., 268
Kaldor, J., 581
Kalf, G. F., 867
Kalimo, H. O., 390
Kallfelz, F. A., 518, 524
Kallman, H., 87
Kallos, P., 638
Kalman, T. I., 1055
Kamat, V. B., 628
Kamath, S. A., 880
Kamen, M. D., 116, 198, 203
Kamen, R. I., 731, 732
Kameyama, T., 714, 725
Kamimura, M., 63
Kamin, H., 403
Kamiryo, T., 1062
Kamishima, Y., 245
Kamiya, H., 458
Kamiyama, M., 787, 788, 789
Kampine, J. P., 72, 593
Kamzolova, S. G., 721
Kan, J., 1048
Kanai, M., 503
Kanazir, D., 1046
Kanczak, N. M., 376, 377, 380, 381, 382
Kaneko, I., 1047
Kaneko, T., 743, 744, 745, 748
Kaneshiro, T., 67
Kanetsuna, F., 40
Kanfer, J. N., 59, 71, 72, 593
Kang, H. S., 890, 915
Kaniuga, Z., 123, 124, 125, 126
Kann, H. E., 796, 797
Kanner, L., 870
Kano-Sueoka, T., 1048
Kantor, G. J., 1057
Kapeller, K., 486, 487
Kapit, R., 469
Kaplan, A., 581
Kaplan, A. P., 972, 973, 976
Kaplan, A. R., 594
Kaplan, A. S., 52
Kaplan, H., 1028
Kaplan, J. C., 859, 863
Kaplan, N. O., 108, 109, 362, 433, 434, 610, 668, 1035, 1036
Kaplan, S. E., 383
Kaplow, L. S., 593
Kappeler, H., 95
Kappler, H. A., 280, 283, 285, 286
Karaboyas, G. C., 743, 745, 754, 760
Karakashian, M., 249
Karam, J. D., 857, 876, 884
Karamata, D., 928
Karlander, S. G., 61
Karlson, P., 533, 534, 539, 1080, 1082, 1094, 1096
Karlsson, K. A., 59, 60, 61, 62, 67
Karnakhova, E. A., 1047
Karnovsky, M. J., 379, 381, 384, 386, 389, 390, 391
Karoum, F., 475, 491, 580
Karplus, M., 610
Karreman, G., 84, 85, 86, 91, 108
Karstadt, M., 725
Karten, H. J., 474
Karunakaran, M. E., 131
Kas, J., 552
Kasang, G., 543
Kasparow, M., 583
Kaspers, J., 84, 92, 107
Kass, L. R., 834, 932
Kass, S. J., 914
Kassell, B., 15
Kastenschmidt, J., 670
Kastenschmidt, L. L., 670
Katagiri, K., 461
Katchalski, E., 20, 85, 86, 89, 95, 260, 273, 399, 400, 401, 404, 672, 1055
Katchalsky, A., 251
Kates, J. R., 868
Kates, M., 57
Kato, G., 626
Kato, I., 259, 272, 361, 433
Kato, K. I., 869
Kato, T., 416
Katoh, S., 207, 208, 209
Katsoyannis, P. G., 1017
Katsura, N., 43
Kattlove, H. E., 72
Katz, A. I., 383
Katz, E., 452, 457, 458, 461, 800
Katz, E. R., 435
Katz, G., 1048, 1052
Katz, J., 119
Katz, J. J., 178, 614, 615
Katz, L., 609
Katz, S., 596
Katze, J. R., 674, 956, 1058, 1059, 1060
Katzen, R., 587, 743, 745
Katzenellenbogen, J. A., 1085, 1088
Katzoff, L., 381, 384, 385, 386, 389, 390
Kauffman, D. L., 1026
Kauffmann, F., 31
Kaufman, B., 49, 50, 69, 70
Kaufman, S., 467, 469, 472
Kaufmann, G., 1056
Kaufmann, R., 798
Kauss, H., 40
Kautsky, H., 218
Kauzmann, W., 14, 283
Kawade, Y., 1052, 1053, 1058

Kawaguchi, K., 118, 123
Kawamatsu, Y., 787
Kawanami, J., 65
Kawano, G., 431
Kawashima, K., 787
Kawashima, N., 198
Kawashima, S., 297
Kawashima, T., 381, 386, 389
Kawata, M., 1056, 1059
Kay, C. M., 20
Kaye, A. M., 291, 293, 1051
Kaye, H., 554
Kayne, M. S., 676
Kazarinova, L. Ya., 1056, 1058, 1059
Kaziro, Y., 426, 431, 433, 787, 788, 789, 1054, 1059
Ke, B., 208
Kean, E. L., 59, 62
Keating, F. R., 587
Kedinger, C., 801
Keen, H., 588
Keenan, R. W., 67
Kegeles, G., 655, 657, 664
Keil, B., 976
Keilin, D., 126, 390
Keir, H. M., 864, 865, 866, 868
Keiser, I., 542, 543
Keister, D. L., 136, 200, 201
Keith, G., 1054
Kellenberger, E., 847
Kellenberger, G., 843
Keller, E. B., 421, 422, 423, 473, 1051, 1052, 1055
Keller, F. A., 41
Keller, H. E., 583
Keller, J. M., 52
Keller, R. A., 88
Kellerman, M., 1026
Kellermeyer, R. W., 391
Kellett, G. L., 336, 339
Kelley, C., 458
Kelley, W. N., 593, 811, 814, 816, 817, 818, 821, 822
Kellogg, R. E., 86, 87, 88
Kelly, D. E., 492
Kelly, G. W., 383, 390
Kelly, R. B., 856, 857, 858, 859, 860, 861, 863, 864, 887, 914, 922
Kelly, T. J. Jr., 888, 910, 930
Kelmers, A. D., 960, 1046, 1059
Kelsoll, M. A., 594
Kelus, A. S., 970, 1001, 1005
Kemp, A. Jr., 141, 144
Kemp, P., 61
Kemp, R. G., 346, 350, 747, 756
Kench, J. E., 380
Kendall, K. A., 505
Kendrew, J. C., 1025, 1038
Kennan, A. L., 516
Kennedy, B. J., 787, 790
Kennedy, E. P., 72
Kennedy, M., 510, 511
Kennel, D., 731
Kenney, F. T., 366
Kenney, M. A., 552, 562
Kent, A. B., 349, 670
Kent, J. L., 30
Kepes, A., 398
Keresztes-Nagy, S., 202
Keresztesy, J. C., 559, 561
Kerker, M., 655
Kernohan, J. C., 89, 102, 104
Kerpel-Fronius, S., 394, 390
Kerr, S. J., 1050
Kersten, H., 782, 787, 788, 790, 793, 1050
Kersten, W., 782, 787, 788, 790, 793, 1050
Kessel, D., 398, 399, 401
Kessel, H., 1051
Kessler, D., 647
Kessler, G., 583
Kessner, D. M., 519
Keverne, E. B., 535
Keyser, J. W., 576
Kézdy, F. J., 324, 325, 1026, 1028
Khairallah, E. A., 440, 754
Khalifa, K., 578
Khalsa, J. K., 578
Kharatyan, S. G., 1059
Khesin, R. B., 721, 722, 723, 724, 734
Khoo, M. K. Y., 814, 819
Khorana, H. G., 411, 813, 864, 869, 876
Khym, J. X., 1048, 1055
Kibler, R. F., 638, 639, 640, 641
Kida, S., 678
Kidd, P. H., 589
Kidson, C., 886
Kidwell, W. R., 885
Kieras, F. J., 187
Kies, M. W., 636, 638, 639
Kiger, J. A. Jr., 888
Kihara, H., 73, 401
Kihara, T., 1032
Kikuchi, A., 280, 288, 289, 292
Kilbourn, B. T., 613
Kilby, B. A., 1028
Kilin, S. F., 89
Kilmartin, J. V., 681, 1024, 1025
Kilpatrick, R., 760
Kilsheimer, G. S., 743, 745
Kim, E. G., 473
Kim, J. H., 795
Kim, S., 284, 290, 291, 292, 293
Kim, S. H., 411, 1062, 1063
Kim, S. J., 655, 656, 667
Kim, U. H., 795
Kim, W. S., 1047
Kimball, A. P., 718
Kimball, P. C., 849, 919
Kimberg, D. V., 519
Kimmelberg, H. K., 1032
Kimura, F., 1048, 1056
Kimura, Y., 461
Kincade, P. W., 970
Kindt, T. J., 33, 34, 1001, 1005
King, J., 353
King, J. S. Jr., 578
King, J. W., 574
King, K. S., 668, 685
King, K. W., 558
King, R. W., 339
King, T. E., 122, 123, 127
Kingdon, H. S., 346, 358, 359
Kingsburg, N., 673
Kingsbury, D. T., 871, 931
Kingsley, G. R., 574
Kinkade, J. M. Jr., 280, 281
Kinney, T. D., 573
Kinoshita, T., 414, 430, 431
Kinson, G. A., 553
Kinstle, T. H., 800
Kint, J. A., 73, 593
Kinzer, G. W., 540
Kipnis, D. M., 748, 749
Kirchner, M. A., 583
Kirk, J. T. O., 161-96; 161, 177, 180, 181, 184, 185, 186, 187, 189, 198, 202
Kirsch, R. E., 552
Kirschbaum, J., 450
Kirschner, K., 242, 324, 332, 338, 676, 686
Kirschner, R. H., 890, 930
Kirshner, A. G., 483
Kirshner, N., 472, 473, 481, 482, 483, 484, 489, 490
Kirtley, M. E., 686
Kisaki, T., 384
Kiselev, L. L., 1052, 1056, 1058, 1059, 1060
Kishimoto, Y., 62
Kisic, A., 65
Kislev, N., 187
Kiss, J., 308
Kissel, J. H., 743, 745
Kit, S., 1051
Kitabchi, A. E., 474
Kitagawa, I., 802

Kitano, T., 1046
Kizer, P. E., 299
Kjeldgaard, N. O., 728, 923, 926
Klaas, D., 146
Klainer, L. M., 743, 744
Klapper, M. H., 660
Klauske, J., 1083, 1096
Klebe, R., 643
Kleber, H.-P., 248
Klee, C. B., 641
Kleeman, C. R., 522
Kleiman, L., 298
Klein, A., 426, 427
Klein, B., 581
Klein, D. C., 492
Klein, E., 1055
Klein, H. A., 437, 438, 439
Klein, M. P., 608
Kleinhans, H., 240, 317
Kleinkauf, H., 451, 453, 454, 455, 456, 461
Kleinmuntz, B., 584
Kleinschmidt, A. K., 663, 900, 901, 914, 917
Kleinschmidt, W., 901
Kleinsmith, L. J., 290, 293, 294, 296, 753
Kleinwächter, V., 782
Kleitman, D., 323
Klemperer, M. R., 1005
Klenk, E., 61, 62
Klenk, H. D., 52, 74, 75
Klenow, H., 856, 861, 865
Kline, B. C., 908, 911, 912
Kline, L. K., 1049, 1055
Klinenberg, J. R., 818, 821
Kling, D., 131
Klingenberg, M., 118, 120, 121, 124, 125, 127, 128, 139, 140, 141, 144
Klionsky, B., 62
Kloosterziel, W., 583
Kloppenburg, M., 65
Klotz, I. M., 84, 654, 660, 662, 672, 674
Klun, J. A., 536
Knaff, D. B., 198, 208, 209
Knappe, J., 346, 362
Knight, C. A., 914, 1032
Knight, E. Jr., 1048
Knight, I. G., 131
Knight, J. A., 581
Knight, P. R., 816
Knight, V. A., 140
Knijnenburg, C. M., 901, 902, 904, 906
Knippers, R., 871, 872, 874, 875, 888, 890, 926, 927, 929, 930, 931, 932
Knoblock, E. C., 580
Knof, S., 673
Knolle, P., 452
Knopf, P. M., 1006
Knopp, J. A., 91, 93, 94
Knorre, D. G., 1054
Knorre, W. A., 248, 251
Knowles, J. R., 379, 674, 1026, 1058, 1060
Knox, R. S., 86, 87
Knox, W. E., 492
Knuppen, V. R., 478
Knüsel, F., 716, 722, 798, 799
Ko, J. H., 1061, 1068
Ko, S. H. D., 325
Koaze, Y., 458
Kobayasaki, I., 1056
Kobayashi, K., 204
Kobayashi, M., 1046, 1047, 1053, 1056, 1059
Kobayashi, N., 802
Kobayashi, Y., 282
Koch, A. L., 403, 404, 405
Koch, J., 890
Koch, M., 558
Kochetkov, N. K., 1045, 1053, 1055
Kocourek, J., 39
Kodaira, K., 424
Kodaira, Y., 458
Kodicek, E., 512, 513, 514, 517, 523
Koekoek, R., 266, 324, 1035, 1036
Koelle, G. B., 384, 390
Koenig, D. F., 175, 177
Koenig, H., 486
Koenig, S. H., 624
Koepp, W., 470
Koerner, J. F., 877
Koffler, H., 452
Koga, H., 838
Koga, M., 814
Kogoma, T., 403, 404, 405, 928, 932
Kohiyama, M., 928, 931
Kohler, H., 970, 972, 979, 980
Kohler, K., 420
Kohler, R. E., 416
Kohlhaw, G., 665
Kohn, K. W., 796, 797, 798, 856
Kohne, D. E., 998
Kohout, M., 758
Koide, S. S., 307
Koike, K., 675
Koirtyohann, S. R., 578
Kojima, Y., 581
Kok, B., 203, 205, 206, 207, 208, 218, 220
Kokatnur, M. G., 565
Kokko, A., 384, 390
Kolakofsky, D., 412, 413, 414
Kolber, A., 833, 841
Kolinski, R., 94
Kolmer, J. A., 574
Kolodny, E. H., 50, 73, 75
Kolosov, M. N., 787
Komai, H., 335
Komai, T., 59
Komano, T., 906
Konda, Y., 794
Kondo, M., 414, 731, 1061
Kondo, N. S., 609
Konev, S. V., 84, 86, 89, 98, 107
Konigsberg, W., 956, 980, 1058, 1059, 1060
Konigsberg, W. H., 1023
Konijn, A. M., 562, 563
Konijn, T. M., 764
Konings, R. N. H., 419
Konrad, M. W., 714, 732, 860, 863
Kontomichalou, P., 901, 913, 922, 923
Koorajian, S., 402
Kopac, M., 594
Kopaczyk, K. C., 68
Kopec, Z., 552
Kopeke, J. A., 574
Kopin, I. J., 467, 473, 475, 477, 480, 481, 482, 484, 485, 490, 491
Koppie, K. D., 612
Koreeda, M., 1081, 1083, 1084, 1085, 1090, 1092
Koretz, S., 743, 745
Korf, J., 582
Koritz, S. B., 743, 745, 754, 760
Korman, S., 796
Korn, D., 866, 867, 932
Kornacker, M. S., 117, 145
Kornberg, A., 273, 274, 405, 674, 716, 718, 719, 795, 796, 811, 813, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 870, 871, 873, 874, 875, 879, 883, 884, 887, 901, 914, 922
Kornberg, R. D., 629, 803
Korner, A., 420
Kornguth, S. E., 638, 648
Korosi, A., 582
Korovina, E. F., 552
Korzhov, V. A., 1054
Kosakowski, M. H. J. E., 1058
Kosawa, T., 876
Koschel, K., 787, 788, 790
Koscielak, J., 47, 64, 74
Koshland, D. E. Jr., 149, 332, 346, 662, 664, 675, 685, 686, 1013, 1018, 1019, 1020, 1021, 1026, 1028, 1029
Koshland, M. E., 1001, 1005

Kössel, H., 1055
Kossman, C. R., 731, 732
Kostial, K., 519
Kostrzewa, R., 139
Kosuga, T., 458
Kotorii, K., 637, 641
Koundakjian, P. P., 118
Kourilsky, P., 829, 841
Kovach, J. S., 954, 955
Koval, G. J., 66
Kovoor, A., 1049
Kowal, J., 760
Kowalik, K. V., 188
Kowalski, C. J., 1014
Kowalsky, A., 607, 611, 613, 622, 623, 624, 1031
Kowarski, S., 512, 513, 516, 518, 519, 520, 523, 525
Kowatch, M. A., 582
Koyama, G., 795
Koyama, H., 885
Kozak, L. P., 40
Kozinski, A. W., 876, 884, 885, 926, 930
Kozinski, P., 930
Kraayenhof, R., 127, 140, 143, 144, 150
Krajl, M., 477
Krakoff, I. H., 814, 815, 816
Krakoff, L. R., 474, 477, 481
Krakow, G., 200
Krakow, J. S., 715, 716, 718, 719, 724, 725, 732
Krane, S. M., 521
Krasnovsky, A. A., 178
Kratky, O., 1063
Kratovich, N., 356
Kraus, G. P., 589
Kraus, K. R., 485
Krause, J., 667
Krause, R. F., 503
Krause, R. M., 974, 998, 1004
Krauskopf, M., 1046, 1054
Krauss, D., 800
Krauss, R., 554
Krausz, L. M., 283
Kraut, J., 683, 1026, 1027, 1028, 1029
Kravitz, E. A., 480
Krawitt, E. L., 518
Krebs, E. G., 294, 346, 348, 349, 350, 351, 353, 354, 357, 364, 365, 669, 670, 743, 744, 748, 749, 755, 758, 759, 764
Krebs, H. A., 118, 551, 553, 554
Kreil, G., 421
Kreishman, G. P., 609, 610
Krejci, K., 580
Krenitsky, T. A., 821
Kresheck, G. C., 319
Kretchmer, N., 593
Kreutz, W., 165, 168, 169, 170, 171, 174, 177, 178, 219
Kreutzberg, G. W., 486
Krichevsky, M. I., 747
Krieg, R. J., 392
Krigbaum, W. R., 1063
Krishna, G., 743, 744, 745, 746, 749, 759, 761
Krishnakumaran, A., 1080, 1081, 1082, 1084, 1085, 1087, 1088, 1090, 1091, 1094, 1095
Krishna-Mallia, A., 552
Krishna Murti, C. R., 553
Krishnamurthy, S., 503
Krisko, I., 432, 433, 435
Kristensen, T., 454
Kristiansen, T., 267
Krivit, W., 58, 62
Kröger, A., 124, 125
Kröger, H., 1051
Krogmann, D. W., 135, 205, 207, 216, 217
Kroll, J. C., 545
Kronau, R., 365
Kronman, M. J., 89, 96, 98
Kronvall, G., 1005
Kroob, J. L., 65
Kroon, A. M., 902, 914, 916, 917, 923
Kroupa, Z., 455
Kramanovic, V., 885
Krüger, J., 240, 241, 242
Krüskemper, H. L., 583
Krüsmann, W. F., 594
Ku, E., 1026, 1028
Kubinski, H., 728
Kubo, R., 976
Kuby, S. A., 664
Kucan, Z., 863
Kuchmak, M., 575
Kuck, U., 74
Kuehl, F. A., 759
Kuehn, G. D., 365
Kuempel, P. L., 928
Kuhn, H., 87
Kujalová, V., 759
Kukovetz, W. R., 747
Kulkarni, V. G., 1080, 1081, 1082, 1084, 1087, 1088, 1090, 1091, 1094, 1095
Kull, F. J., 1059
Kullenberg, B., 545
Kumagai, K., 450
Kumar, S., 829, 841, 1021, 1022
Kumar, S. A., 122
Kumon, A., 364
Kung, G. M., 304
Kung, H.-K., 1048
Kung, S. W., 187
Kunimoto, T., 795, 796
Kunin, A. S., 520, 521, 522
Kunkee, R. E., 404
Kunkel, H. G., 972, 993, 997, 1005
Kuntzel, B., 1046
Küntzel, H., 435
Kuntzman, R., 471
Kunz, W., 118
Kuo, J. F., 294, 364, 365, 748, 752, 757, 758, 759, 765
Kuo, T., 1058, 1060
Kupiecki, F. P., 748
Kuppas, A., 821
Kurahashi, K., 451, 453, 454, 455, 461
Kuramitsu, H. K., 456
Kurey, M. J., 579
Kurganov, B. I., 661, 662
Kuribayashi, K., 1001, 1005
Kurihara, T., 641
Kuriki, Y., 430, 1055, 1056
Kurland, R. J., 615, 619
Kurnick, J. T., 433
Kurogochi, Y., 763
Kurshli, Yu. A., 89
Kurup, C. K. R., 132
Kurylo-Borowska, Z., 453, 456
Kusakari, T., 787
Kuschmitz, D., 240
Kushner, S. R., 859, 863
Kustin, K., 316, 323
Kuwano, M., 754, 1052
Kuwashima, S., 187
Kuwert, E., 74
Kuylenstierna, B., 119, 120
Kuzuya, N., 273
Kuzuya, T., 273
Kvamme, E., 664
Kvetnansky, R., 490, 491
Kwan, C. N., 1047
Kwok, S., 670
Kwon-Rhee, S. J., 664
Kynoch, P. A. M., 619
Kyogoku, Y., 1052

L

Laatsch, R. H., 636
LaBach, J. P., 61
Labanauskas, M., 411, 1063, 1064
Laber, L. J., 189
Labler, L., 1081, 1082, 1083, 1085, 1092
Labouesse, B., 1026, 1028, 1058
Labouesse, J., 1026, 1028
Labouret, T., 779, 784
Lackland, H., 974, 998, 1004
Lacourly, A., 164
Lacroute, F., 950
Laduron, P., 467, 469, 471, 473, 486, 487
Laetsch, W. M., 180
Laferriere, L., 189
LaFond, D., 576

Lagerkvist, U., 1058, 1060
Lagerstedt, S., 481
Lagnaux, S., 1005
Lahav, M., 35
Laidler, K. J., 1014
Laing, D. G., 1085, 1088
Laipis, P., 901, 902, 914
Laipis, P. J., 876
Lajtha, A., 638, 639
Lajtha, L. G., 815
Lake, J. A., 1063
Lakhanpal, R. K., 562
Lakshmanan, M. R., 552
Lakshmanan, S., 398, 399
Lal, B. M., 1064
Laland, S. G., 453, 454, 461
Lam, K. W., 131, 132
Laman, V. R., 619
Lamb, D. C., 281
Lamb, K. P., 1097
Lambert, B., 1046
Lambeth, D. O., 132
Lamm, C. G., 578
Lamm, M. E., 1005
Lamola, A. A., 85, 86, 88, 89, 91, 99
Lamoureux, G., 638, 639
Lampen, J. O., 40
Lancini, G., 798, 800
Landa, V., 1083, 1084, 1094, 1095, 1098
Landahl, H. D., 251
Landi, L., 552
Landin, R. M., 1062
Landsberg, L., 474, 477, 480, 481, 485
Landy, A., 1048, 1057
Lane, B. G., 1049, 1050
Lane, B. P., 383
Lane, M. D., 663
Lang, D., 914
Lang, F., 189
Lang, H. M., 199
Langan, T. A., 287, 293, 294, 295, 296, 364, 365, 753, 758
Langdon, R. G., 763
Lange, A. L., 131
Lange, H. W., 290, 292
Langer, B., 976, 979
Langerman, N. R., 654, 662, 672, 674
Langridge, R., 1062, 1063
Lanier, G. N., 544
Lannan, J. E., 1057
LaNoue, K., 139
Lanset, S., 1005
Lantz, R. S., 47
Lapetina, E. G., 636, 647
Lapidot, Y., 404, 1055
La Placa, M., 801
Lapointe, J., 674, 1058
Laqueur, G. L., 559, 561
LaRaia, P. J., 743, 744
Lardy, H. A., 116, 117, 119, 129, 132, 133, 139, 141, 145, 238, 243, 244, 669
Lark, C., 928
Lark, K. G., 856, 871, 882, 884, 886, 887, 888, 890, 891, 923, 925, 926, 928, 929, 930, 931, 932
Larner, J., 346, 348, 352, 353, 354, 355, 593, 756
Laroche, M. J., 478
Larrabee, M. G., 646, 647
Larsen, J. R., 1095
Larson, J. E., 780, 781, 784, 787
Larvor, P., 553
Laskowski, M., 779
Laskowski, M. Sr., 1032, 1035
Last, J. A., 413, 436
Lastity, D., 1056
Laszlo, J., 857, 867
Latham, H., 420
Latt, S. A., 88
Latzko, E., 366, 367
Lauber, E., 473, 487
Laufer, H., 1097
Laughnan, J. R., 998, 1003
Laurent, M., 883, 918
Lausarot, P. M., 673
Laustriat, G., 89
Lauterborn, W., 242
Lautsch, W., 92, 94
Lavallé, R., 911, 953, 954, 963
Lavi, S., 1046
Lavin, F., 563
Law, J. H., 533-48; 67, 534, 1080, 1081, 1084, 1091
Law, M. W., 1081, 1084, 1088, 1089, 1090
Lawallen, L. L., 1097
Lawford, C. R., 45, 46
Lawler, P. D., 190
Lawler, S. D., 1005
Lawrence, D. A., 965
Lawrence, P. A., 1095
Lawson, D. E. M., 75, 513, 517, 523
Lawson, W. B., 1026
Lawton, A. R., 970
Laycock, D. G., 415
Laynez, J., 1015
Lazar, J., 611
Lazarus, S. S., 383, 390
Lazen, A. G., 32
Lazurkin, Y. S., 779
Lazzarini, R. A., 200
Leach, F. R., 273, 398
Leano, L., 798
Leary, T. R., 665
Leaver, C. J., 187
Leavitt, C. A., 348, 349
Leberman, R., 1035, 1036
Lebish, P., 580
Leblond, C. P., 44, 522
Lebowitz, J., 878, 900, 901, 902, 903, 904, 905, 914, 917, 932
Leboy, P. S., 1050, 1051
Led, J. J., 613
Ledbetter, M. C., 175, 177
Ledeen, R., 65
Leder, P., 402, 404, 414, 417, 425, 426, 430, 1056
Lederberg, E., 919, 920
Lederberg, J., 875, 919, 920, 925, 970, 979
Lederer, B., 351, 352, 353, 761
Lederman, M., 440
Leduc, E. H., 381, 391, 392
Lee, B., 1015, 1021
Lee, C. P., 120, 121, 124, 126, 129, 134, 135, 136, 137, 143, 145, 147, 148, 149, 1032
Lee, C. S., 890, 901, 914, 916, 930
Lee, H. W., 291
Lee, I. Y., 124
Lee, J. F., 641
Lee, M.-L., 1058, 1060
Lee, N. H., 139
Lee, S. L., 593
Lee, S. W., 513, 514, 515, 519
Lee, Y. C., 798
Lee, Y. P., 117
Leelavathi, D. E., 383
Leeper, L. C., 472, 475
Leeper, R., 815
Leermakers, P. A., 88
Lees, C. W., 297
Lees, M. J., 637
Lefever, R., 252, 253
Lefkowitz, R. J., 743, 745, 754
Legallais, V., 317, 1032
Legault-Demare, J., 1058
Legocki, A. B., 1046, 1047, 1049
Lehman, H., 619
Lehman, I. R., 858, 859, 860, 861, 863, 864, 875, 880, 901
Lehmann, A. R., 885
Lehmann, V., 33
Lehmeyer, J. E., 743, 744
Lehninger, A. L., 116, 118, 137, 138, 140, 141, 143, 244, 522
Lehrer, S. S., 89, 91, 98, 99, 110
Leibovitz, Z., 72
Leibowitz, M. J., 364, 1062
Leigh, J. S., 234, 623
Leimgruber, W., 796
Leis, J. P., 421, 422, 423
Leive, L., 37, 777, 778
LeJohn, H. B., 669
LeKim, D., 66, 67

Leloir, L. F., 71, 264
Lelong, J. C., 413, 414, 415
Lemaire, G., 1058
Lemberg, M. R., 116
LeMinor, L., 30
Lemoine, F., 429, 1058
Lenaz, G., 144
Leng, M., 297, 298, 299
Lengyel, P., 411, 412, 414, 420, 425, 426, 427, 428, 431, 1045, 1056, 1057, 1059
Lennarz, W. J., 30, 35, 40, 1062
Lennox, E. S., 1006
Lenny, A. B., 857
Lenoir, J., 1005
Lenz, P. H., 581, 582
Leonard, N. J., 461, 1049
Leopold, A. C., 190
Le Page, G. A., 813, 815, 822
Le Pecq, J., 903
Lerman, L. S., 260, 265, 781, 883, 884, 926, 1018
Lerno, V. A., 640
Lesch, M., 811, 814, 816, 817
Lesch, P., 62
Lesley, J. W., 189
Leslie, R. B., 628
Lesnaw, J. A., 673
Lessard, J. L., 1057
Lestina, F. A., 281
Letendre, C. H., 1060
Levenberg, B., 472
Levey, G. S., 743, 745, 764
Levi, A. S., 508
Levi-Montalcini, R., 644, 645, 646, 647
Levin, E. Y., 472
Levin, J. A., 480
Levin, U., 583
Levina, E. S., 1056
Levine, A. J., 882, 883, 890, 915, 928
Levine, E. M., 398
Levine, L., 647, 1035
Levine, M., 883, 888, 930
Levine, R. J., 477
Levine, R. P., 180, 190, 199, 207, 208, 211, 216, 221
Levinson, H. Z., 1062
Levinson, S., 300
Levinson, S. A., 574
Levinson, W., 868
Levinthal, C., 402
Levinthal, M., 31
Levis, A. G., 885
Levisohn, S., 404
Levitt, J. I., 580
Levitt, M., 467, 469, 470, 474, 491, 1063, 1064
Levitz, M., 593
Levitzki, A., 578, 664
Levy, C. C., 400
Levy, H., 800
Levy, H. R., 403, 664
Levy, M., 88
Levy, R., 68
Levy, R. I., 822
Levy, S. B., 37
Lewallen, C. G., 578
Lewin, M. R., 578
Lewis, E. R., 238
Lewis, E. S., 316
Lewis, M. S., 656
Leybold, K., 581
Lezius, A. G., 861
Leznoff, C. C., 139
Lezzi, M., 1094, 1097
Li, C.-C., 1047
Li, C. K., 99
Li, N. C., 609
Li, T., 1085, 1088
Li, T.-K., 803
Liberman, E. A., 127, 136, 137, 142, 143
Lichtenthaler, H. K., 214, 217
Lichter, E. A., 1001, 1004, 1005, 1006
Lichti, F. V., 511
Lichtman, M. A., 820
Lichton, I. J., 505
Lieberman, R., 1005
Liebke, H., 1047
Liedke-Kulke, M., 919
Liedtke, M. P., 365
Liepkalns, V., 1062
Liess, K., 346, 358
Lietman, P. S., 1047, 1058
Liew, C. C., 291, 1047
Light, P. A., 123, 124
Lightbody, J., 647
Lightbody, J. J., 207
Lightman, S. L., 481
Lignowski, S. J., 624
Lill, H., 721, 799, 839
Lill, U. I., 715, 721, 799, 800, 839
Lilley, R. M., 816
Lilly, C. E., 536
Limbosch, S., 187
Lin, E. C. C., 492
Lin, L., 431
Lin, S.-Y., 420, 422, 433
Linas, S., 381, 386
Lindahl, G., 890
Lindahl, T., 859, 901
Lindberg, A. A., 32
Lindberg, B., 60
Lindberg, D. A. B., 588, 589
Lindberg, O., 145, 146, 147
Lindblad, P., 250
Lindman, B., 625
Lindmar, R., 482
Lindop, C. R., 131
Lindquist, B., 520
Lindqvist, B., 931
Lindqvist, B. H., 882, 883
Lindqvist, I., 625
Lindqvist, M., 471, 482
Lindsay, D. T., 295, 303
Lindsley, D., 998
Lindstedt, G., 579
Lindstrom, T. R., 619, 680
Lindzey, G., 535
Ling, G. M., 743, 744, 753
Ling, V., 280, 293, 294, 295, 296, 365
Lingens, F., 266, 268
Linn, S., 301, 878, 880
Linn, T. C., 346, 355, 356
Linnane, A. W., 161
Lipkin, D., 741
Lipkin, E., 675
Lipmann, F., 409-48; 116, 360, 414, 415, 423, 425, 426, 430, 431, 432, 433, 435, 453, 454, 455, 456, 461, 743, 749, 754, 758, 765
Lippel, K., 503
Lippert, E., 90
Lipscomb, W. N., 682, 683, 1020, 1022
Lipsky, S. R., 610
Lipton, J. M., 554
Lipton, R., 750
Lipton, S. H., 125
Liquori, A. M., 612, 779
Lis, H., 453
Lishajko, F., 469, 482
Lissitzky, S., 754
Litman, R. M., 274, 859, 863
Litt, M., 1046, 1054
Littau, V. C., 302, 306
Littauer, U. Z., 1046, 1048, 1050, 1051, 1055, 1056, 1064
Little, B. R., 578
Little, E. P., 511
Little, J. W., 875
Litwin, S. D., 1005
Liu, K. J., 624
Liu, T. Y., 404
Liu, W., 803
Livett, B. G., 482, 484, 486, 487
Livingston, D. M., 402, 404, 417
Livingston, R., 84, 86
Ljones, T., 453
Ljunggren, M., 523
Lloyd, J. B., 382, 390
Lloyd, W., 763
Locksley, H. D., 538
Lockwood, A. H., 425, 732, 733
Lodish, H. F., 411, 419, 420, 423
Loeb, J. E., 300, 304

Loeb, L. A., 866
Loebel, J. E., 1048
Loehr, E., 581
Loehr, J. S., 1051
Loening, U. E., 187, 1047, 1064
Loeser, R., 1046
Loewi, O., 466
Lofrumento, N. E., 139, 144
Loftfield, R. B., 1058, 1060, 1061
Loglisci, M., 139
Löhr, G. W., 593
Löhr, J. P., 62
Loken, S. C., 147
Lombardi, B., 383
Lonberg-Holm, K. K., 316, 317
London, F., 87
London, I. M., 821, 822
Long, C., 564
Long, C. W., 664
Longworth, J. W., 92, 93, 94, 96, 98
Lontie, R., 19
Lorand, L., 743
Lord, R. C. Jr., 13
Lorentz, K., 581
Losada, M., 365
Losee, F. L., 565
Loshkareva, N. P., 787, 788
Losick, R., 398, 405, 716, 728
Lotan, N., 614
Lotka, A. J., 238
Lotspeich, F. J., 503
Love, D. S., 669
Love, J., 318
Love, L. L., 747
Lovenberg, W., 202, 470, 471, 477, 479
Lowe, I. P., 743, 745
Lowe, M. D., 537
Lowenstein, J. M., 116
Lowrie, R. J., 1056
Lowry, B. A., 816, 819, 821, 822
Lowry, C. V., 412
Lowry, O. H., 348, 577, 594, 756
Loyter, A., 120, 135
Lubin, M., 398, 399, 401
Lubran, M., 591
Lucas, Z. J., 859, 860, 861, 862, 863
Lucas-Lenard, J., 409-48; 414, 415, 423, 425, 426, 427, 430
Luciani, S., 139
Luck, D., 187
Luck, D. J. L., 916
Luck, J. M., 280, 281, 282, 284
Lucy, J. A., 509, 510, 511
Lüderitz, O., 30, 31, 33, 39, 59
Ludescher, U., 612
Ludtke, K., 470
Luedemann, G., 458
Luescher, E., 260
Luft, J. H., 669
Luft, R., 118
Luft, S., 128, 146
Luh, W., 118
Lui, N. S. T., 509
Luisi, P. L., 330, 678
Luizzi, A., 647
Lumry, R., 90, 1020, 1032
Lumsden, C. E., 639
Lund, J., 513, 514, 515
Lund, P., 118
Lundberg, B., 1055
Lundegardh, H., 209
Lundevall, J., 1005
Lundgren, H. P., 574
Lundholm, L., 743, 744
Lundquist, A., 582
Luria, S. E., 834
Lurquin, P., 1058, 1059, 1061
Lüscher, M., 533
Luse, A. S., 647
Lusty, C. J., 677
Lutze, G., 118
Lux, S. E. IV, 552
Luzzati, A. L., 970
Luzzati, D., 829, 840, 842
Luzzati, V., 169, 171, 172, 173, 185
Lyman, H., 198
Lymn, R. W., 318, 338, 339, 658
Lyn, G., 901
Lynch, W. E., 885
Lynm, D., 384, 388, 390
Lyon, H. W., 565
Lyon, J. B. Jr., 743, 744
Lyon, M. F., 817
Lyons, W. R., 505
Lyttleton, J. W., 191

M

Ma, R. I. W., 518
Maag, T. A., 1051
Maaløe, O., 724, 728, 923, 926, 928
Maas, A. H. J., 582
Maas, R., 924
Maas, W. K., 924, 958, 961, 963
Maass, G., 1053, 1056
Mabry, C. C., 580
MacDonald, J. C., 458, 459
MacDonald, J. E., 144
MacDonald, P. L., 1085
MacFate, R. D., 574
MacGillivray, A. J., 292
MacGivan, J. D., 119
Macgregor, H. C., 916
MacGregor, R. R., 524
Mach, B., 454, 777
MacHattie, L. A., 901, 902, 910
Machliedt, W., 580
Machlis, L., 537, 539
MacKay, W. D., 1085, 1088
MacKechnie, C., 1064
Mackedonski, V. V., 778
Mackintosh, D. R., 589
Mackler, B., 122
MacLennan, D. G., 247
MacLennan, D. H., 120, 131
MacLeod, R. M., 743, 744
MacMahon, R. A., 593
MacMillan, V. H., 58
Macpherson, L., 51
MacQuarrie, R. A., 333
Maden, B. E. H., 425, 428
Madison, J. T., 1045, 1048
Madison, V., 612
Maeba, P., 665
Maeda, H., 450
Maeda, K., 791, 795
Maelicke, A., 1045-78; 1052, 1061
Maelzer, D. A., 1095
Maeno, H., 675
Mäenpää, P. H., 1047
Magasanik, B., 730, 752, 765, 819, 959
Mage, R. G., 1001, 1005, 1006
Magee, P. N., 1050
Magee, P. T., 957
Mager, J., 813, 814, 820, 821, 822
Mager, M., 578
Maggi, N., 798
Magiott, D., 429
Mahadevan, S., 502, 503
Mahajan, K., 283, 266
Mahler, H. R., 638
Mahler, I., 859, 863
Maickel, R. P., 492
Mair, G. A., 1015, 1020, 1021, 1022
Maitra, P. K., 148, 248
Maitra, U., 413, 423, 714, 720, 732, 733, 778
Maizel, J. V. Jr., 673, 715
Majhofer-Orescanin, B., 60, 65
Majumdar, C., 874, 883, 888
Makela, O., 262, 275, 970
Mäkelä, P. H., 30, 35
Makita, A., 63, 64, 74
Makman, M. H., 1059
Maksimov, M. Z., 89
Malamud, D., 743, 744
Malathi, P., 503, 507
Malawista, S., 644

Malcolm, N. L., 1058
Malcom, G. T., 565
Maley, F., 664
Maley, G. F., 664
Malhotra, O. P., 678, 686
Malkin, L. I., 404
Malkin, M., 433, 754
Malkin, S., 210, 212, 218
Mallette, L. E., 764
Mallikarjuneswara, V. R., 580
Malm, O. J., 519
Malmfors, T., 480
Malmgren, H., 403
Malone, M., 62
Malt, R. A., 45
Maltbie, M., 354, 355
Malthus, R. S., 558
Malygin, E. G., 1054
Mandal, A. R., 591
Mandel, J. L. Jr., 801
Mandel, L. R., 759, 1051
Mandel, M., 612, 778, 901, 910
Mandel, P., 365, 636, 637, 648, 718, 1046, 1047
Mandelkern, L., 613, 614
Mandell, J. D., 905
Mandelstam, J., 403, 404, 405
Mandorf, G., 578
Mandy, W. J., 1005, 1006
Manecke, G., 260, 273
Manery, J. F., 593
Manger, J. R., 130
Mangiarotti, G., 412, 416
Mani, R. S., 192
Mankovitz, R., 662, 665, 688
Manly, M. L., 520
Mann, J. D., 475, 479
Mann, K. G., 673, 674, 675
Manney, T. R., 947
Mannik, M., 1005
Manning, T., 470
Manoukian, E., 583
Mansour, J. M., 366
Mansour, T. E., 147, 352, 366, 669, 743, 756, 757, 765
Mantai, K. E., 215
Manté, S., 754
Mantei, N. A., 832
Mantel, M., 360
Manyai, S., 1062
Manyakov, V. F., 721
Mapes, C. A., 73
Maragno, I., 759
Maral, R., 789
Marantz, R., 486
Marbach, E. P., 581
Marcaud, L., 829
Marcel, Y. L., 592
Marchalonis, J., 970
Marchesi, V. T., 164, 383
Marchetti, M., 552
Marchin, G. L., 1059
Marchiori, F., 1017
Marcker, K. A., 411, 414, 415, 421, 422, 428, 438, 1046, 1047, 1048, 1056
Marcus, D. F., 568
Marcus, D. M., 64
Marcus, R., 743, 745
Mare, I. J., 33
Margalit, R., 140, 1031, 1032
Marglin, A., 617, 1017
Margoliash, E., 140, 202, 979, 982, 983, 1005, 1029, 1031, 1032
Margolies, M. N., 974, 1004
Margolin, P., 947, 948, 950, 955
Margolis, F. L., 489
Margolis, S. A., 144
Margulies, A. D., 844
Mariani, A., 561
Marinetti, G. V., 743, 744, 745
Marino, P., 722, 723, 799
Marinozzi, V., 378, 379, 381
Marion, G. B., 560
Markau, K., 667
Markert, C. L., 1035
Markham, R., 741
Mírki, F., 474
Markley, J. L., 607, 608, 610, 612, 613, 614, 615, 616, 617, 618, 620
Marks, N., 636, 638, 639, 641
Marlborough, D. I., 613
Marmur, J., 879, 911, 917
Maron, E., 101
Marquis, N. R., 743, 744
Marquisee, M , 1057
Marschke, C. K., 452, 456
Marsh, A. A., 803
Marsh, J. B., 47, 74
Marsh, J. M., 743, 744, 745, 759, 760
Marsh, W. H., 293, 294
Marshall, A. G., 625
Marshall, J., 382
Marshall, J. S., 270
Marshall, R., 458
Marshall, R. D., 1061
Marshall, W. J., 557, 561
Martenson, R. E., 638, 639, 641
Martensson, E., 62, 71
Martensson, L., 1005
Martin, B. T., 1064
Martin, D. Jr., 366
Martin, D. B., 659, 662, 663, 688
Martin, D. F., 537
Martin, D. H., 1048
Martin, D. L., 518, 523, 525
Martin, I., 199
Martin, I. F., 218
Martin, J. A., 65
Martin, J. H., 522
Martin, J. S., 625
Martin, R. B., 612
Martin, R. G., 418, 712, 944, 953, 959
Martin, P. K., 798
Martin, S. B., 521
Martinek, R. G., 574
Martinez, A. M., 715, 719
Martinez de Munoz, D., 149
Martonosi, A., 149
Marushige, K., 293, 294, 295, 296, 304, 306, 365
Marvin, D. A., 882, 883
Marvin, S. B., 664
Masamune, Y., 884
Maschwitz, V. W., 535, 541, 545
Masek, B., 383
Maskaleris, M. L., 586
Masner, P., 1083, 1084, 1094, 1095, 1098
Mason, H. S., 665
Mason, K. E., 505
Mason, T. E., 392
Massey, V., 201, 335, 666
Massod, M. F., 581
Massotti, D., 553
Masters, C. J., 673
Masuda, T., 840, 920, 1001, 1005
Masuda, Y., 613
Masukata, K., 722, 723
Masukawa, H., 414, 430, 431
Matalon, R., 72, 73
Mather, A., 584
Matheson, A. T., 400, 401, 417
Mathews, A. G., 576
Mathews, E., 876, 884, 885
Mathews, F. S., 230
Mathias, A. P., 325
Mathur, H. H., 798
Mathur, R., 612
Matolin, S., 1094, 1095
Matsuba, M., 743, 745, 754
Matsubara, H., 202, 1029, 1031
Matsubara, K., 901, 911, 913, 921, 923, 927
Matsubara, T., 61
Matsuhashi, M., 404, 1062
Matsui, K., 1046
Matsui, M., 793, 1085, 1088
Matsukage, A., 725, 1053
Matsumoto, H., 1005
Matsumoto, M., 637
Matsumoto, R., 637
Matsumura, F., 539

Matsuo, K., 297
Matsuoka, Y., 970
Matsuzawa, T., 366
Mattenheimer, H., 574
Mattern, I., 834
Matthael, H., 798
Matthews, B. W., 1026, 1027
Matthews, J. L., 522
Mattiasson, B., 672
Mattinson, G., 1000
Mattoon, J. R., 138
Matzura, H., 724
Mauck, J., 39
Mauger, A. B., 458, 461, 779
Maul, S. B., 820
Maunsbach, A. B., 379
Mauritzen, C. M., 280, 284
Mautner, H. G., 384, 390
Mawer, E. B., 513
Max, S. R., 140
Maxam, A., 67
Maxwell, E. S., 362, 434
Maxwell, I. H., 1046
Maxwell, M. H., 522
May, B. K., 404
Mayahara, H., 383, 384, 390
Maybury, R. H., 20
Mayer, D., 239
Mayer, R. M., 40
Mayer, S. E., 354, 355, 743, 744, 748, 755, 759
Mayerle, J. A., 565
Mayor, D., 484, 486, 487
Mayr, M., 124
Mazatis, J., 713, 715, 717, 725
Mazen, A., 281
Mazumber, R., 413, 414
Mazurov, V. I., 552
Mazzarella, L., 228, 230, 657, 680
Mazzocchi, P. H., 534, 537, 541
Mazzoleni, R., 790
McAuslan, B. R., 800, 868
McCann, S. M., 743, 744, 745
McCarter, J. A., 859
McCarthy, B. J., 998, 1000
McCarty, K. S., 281, 291
McCarty, R. E., 136, 166
McClain, W. H., 1057, 1059
McCluer, R. H., 798
McClure, M. E., 303, 307
McClure, W. O., 86, 100
McCluskey, R. T., 509
McCollister, R. J., 816, 819
McCollum, E. V., 560
McCollum, J. P., 189
McComb, R. B., 576
McConkey, G., 1026, 1028
McConn, J., 1026, 1028
McConnell, H. M., 227-36; 227, 228, 229, 230, 231, 629, 1023
McConnell, K. P., 1058, 1060
McCormick, A., 60
McCormick, D. B., 260, 265, 273
McCormick, J. P., 1085, 1088
McCorquodale, D. J., 400
McCoy, E. E., 594
McCoy, K. E. M., 559
McCoy, T. A., 1046
McCrea, B. E., 669
McCune, R. W., 760, 761
McDaniel, E. G., 504
McDevitt, H. O., 1005
McDonald, C. C., 611, 612, 615, 616, 617, 1029, 1031
McDonald, J. E., 514, 515
McElheney, R. N., 173
McEvoy, F., 821
McEwen, B., 647
McFadden, B. A., 365
McFarland, B. G., 227, 228
McFarland, V. W., 50, 75
McGavin, S., 95
McGeer, E. G., 470
McGeer, P. L., 470
McGivan, J. D., 139
McGrath, J., 716, 724, 725, 734
McGregor, D., 647
McGuire, E. J., 42, 43
McGuire, S. L., 581
McGurk, D. J., 538
McHale, D., 568
McInnes, I., 764
McIntire, S. A., 1005
McIntosh, D. J., 560, 588
McKay, D., 251
McKay, R. H., 108
McKean, E., 973, 974, 997
McKeehan, W. L., 432, 433
McKereghan, M. R., 473, 487
McKerns, K. W., 814
McKhann, G. M., 68
McKibbin, J. M., 64
McKneally, S. S., 640, 641
McLaughlan, A. D., 607
McLaughlin, C. L., 507
McLaughlin, C. S., 957
McLean, A. E. M., 557, 561
McLean, J. D., 180
McMacken, R. L. Jr., 832
McMillan, A., 475
McMurray, C. H., 317, 329, 331, 339, 676, 683, 684, 1038
McMurray, W. J., 610
McNeel, M., 615
McPherson, A. Jr., 683, 684, 1035, 1036
McQuade, A. B., 404
McShan, W. H., 535, 536, 1081, 1082, 1088, 1094
McSwain, B. D., 198, 209
McSwiney, R. R., 577
Meadows, D. H., 609, 613, 614, 615, 616, 617, 618, 620
Mears, T. W., 574
Mechler, B., 882
Mecke, D., 346, 358
Medicus, R., 356
Mednick, M. L., 389, 390
Meezan, E., 49
Mehard, C. W., 198
Mehl, E., 73, 636, 637, 638, 641
Mehl, J. W., 11
Mehler, A. H., 1058, 1060, 1061
Meier, S., 62
Meighen, E. A., 678, 679
Meihlac, M., 801
Meijers, C. A. M., 579
Meinwald, J., 534, 535, 536, 537, 541
Meinwald, Y. C., 534, 536, 537, 541
Meisel, E. A., 383, 390
Meisler, J., 743
Meisler, M. H., 294, 365, 758
Meisler, N., 402
Meister, A., 664
Mela, L., 135, 137, 138, 142, 149, 150, 317, 1032
Melamed, N. V., 1054
Melancon, M. J. Jr., 523, 525
Melcher, G., 1063
Melchers, F., 47
Melechen, N. E., 273, 274, 875, 901
Melhuish, W. H., 86
Melicow, M. M., 750
Mellanby, E., 507, 508
Meloni, M. L., 457
Meloun, B., 1026
Melson, G. L., 743, 745
Meltzer, H., 592
Meltzer, J., 1094
Meltzer, M., 1005
Melville, R. S., 573, 584, 586, 594
Menahan, L. A., 746, 747, 748
Mendel, L. B., 557, 559, 560, 562
Mendelsohn, S., 877
Mendershausen, P. B., 66
Mendicino, J., 346, 356

Meng, H. C., 743, 744, 748
Menici-Desseaux, B., 1058
Menke, W., 161, 166, 168, 203, 204
Menninger, J. R., 436, 920
Menninger, L., 920
Menozzi, M., 790
Mercer, E. I., 189
Mercer, F. V., 180
Merchant, B., 970
Mergenhagen, S. E., 37
Merkel, J. R., 404
Merlevede, W., 351, 352, 756
Merlino, N. S., 743, 745, 746, 748, 759
Merrifield, R. B., 401, 617, 1017
Merril, C. R., 1048
Merritt, J. H., 471
Mersmann, H. J., 352, 353, 355, 761
Mertz, E. T., 271
Mertz, W., 551, 553, 568
Meselson, M., 412, 420, 877, 919, 920
Messenguy, F., 672, 944, 945
Messer, W., 856, 890, 891, 925, 931
Messier, P., 522
Messineo, L., 281
Metcalf, M. G., 583
Metcalfe, J. C., 626, 627
Metlička, R., 247
Metz, D. H., 1054
Metz, E., 861
Metz, E. N., 818
Metzger, B., 348, 349, 662, 670, 688
Metzger, H., 273, 972, 973, 976
Metzner, H., 161, 198
Meyer, A. J., 115-60; 139, 144
Meyer, A. S., 1081, 1085, 1088, 1095
Meyer, H. G., 392
Meyer, M., 131, 132
Meyer, R., 421
Meyer, R. R., 856, 867
Meyer, W. L., 351, 521
Meynell, C., 910, 913
Meynell, G. G., 910, 913
Miale, J. B., 576
Miall, S. H., 416
Miani, N., 486
Micetich, R. G., 458
Michael, M. S., 1059
Michael, R. P., 535
Michaelson, I. A., 480, 481
Michalec, C., 58, 59
Michalke, H., 714
Michel, J. M., 178
Michel-Bechet, M., 44
Micheli, A., 1001, 1005
Michelotti, F. W., 575
Michelson, A. M., 1051, 1055
Michel-Wolwertz, M. R., 178
Mickelsen, O., 559, 561, 569
Midgley, A. R. Jr., 392
Miech, R. P., 813
Migeon, B. R., 817
Mikac-Dević, D., 578, 579
Mikhelashvili, M. S., 89
Mikulski, A. J., 1035
Milanesi, G., 887
Mildvan, A. S., 609, 622, 623, 628
Milhorat, A. T., 586
Millar, D.B., 1051, 1052, 1054
Miller, B. R., 331
Miller, C. A., 906, 913, 921, 922
Miller, C. G., 1028
Miller, D. L., 425, 426, 427, 428
Miller, D. R., 820
Miller, F., 378, 379, 380
Miller, G. A., 461
Miller, H., 578
Miller, J., 816, 817, 818
Miller, J. C., 189
Miller, J. D., 263, 269, 274
Miller, J. H., 752
Miller, J. P., 1062
Miller, M. J., 414, 415
Miller, N., 1055
Miller, O. L. Jr., 916
Miller, R. C. Jr., 926
Miller, R. L., 423
Miller-Faures, A., 885
Millet, J., 404, 405
Millette, R. L., 306, 714, 732, 733
Millonig, G., 378, 379, 381
Mills, C. F., 563, 566
Mills, J. N., 237
Mills, R. C., 560
Milman, G., 429, 437, 438
Milman, L. S., 757
Milne, D. B., 568
Milnes, L., 317
Milstein, C., 293, 295, 296, 970, 972, 973, 979, 980, 985, 987, 993, 996, 1004, 1005, 1006
Milstein, C. P., 972, 973, 985
Milstien, S., 1019
Milstoc, M., 593
Minakami, S., 122
Miner, P., 885
Minkley, E. G., 725, 733
Minnaert, K., 169
Minssen, M., 667
Mintz, D. H., 743, 744, 745
Mircheff, A. K., 526
Mireault, N. G., 814, 816
Miro, M., 578
Mironenko, V. I., 1059
Mirsky, A. E., 285, 290, 291, 292, 293, 294, 296, 302, 306, 365, 753
Mirsky, R., 1031
Mirzabekov, A. D., 1056, 1059
Misra, D. N., 916
Mistry, S. P., 563
Mita, T., 281
Mitani, M., 901, 906, 913, 921, 922, 923
Mitchell, G. V., 552, 559
Mitchell, M., 876, 884, 885
Mitchell, P., 116, 120, 126, 129, 130, 131, 134, 135, 136, 137, 142, 143
Mitchell, R. A., 130
Mitchell, W. M., 404, 645, 646
Mitra, S., 778, 856, 861, 862, 870, 884
Mitra, S. K., 1058, 1061
Mitscher, L. A., 458
Mitsugi, K., 427
Mitsui, H., 724
Mittelman, A., 1050
Miura, K., 918, 1052
Miura, K.-I., 1045, 1057
Miura, T., 36
Miura, Y., 787
Miwa, M., 365
Miyamoto, E., 758
Miyamoto, M., 787
Miyatake, T., 62, 63
Miyazaki, M., 1046, 1047, 1048
Mizuno, D., 885
Mizuno, N. S., 794, 795
Mizuno, S., 722, 723, 798, 799
Mizushima, S., 36, 715
Mizutani, S., 868
Mizutani, T., 1048
Mock, M. B., 72
Mock, N. H., 619, 680
Möckel, W., 362
Model, P., 1057
Modrich, P., 875
Moerman, E. J., 484
Moffa, D. J., 503
Moffat, A. C., 580
Moffat, J. K., 230, 1023
Moffatt, J. G., 856
Mohberg, J., 281, 307
Mohr, S. C., 338
Mölbert, E. R. G., 376, 381, 382
Molchanof, A. M., 239, 249
Moldave, K., 362, 432, 433, 1045, 1046
Molin, S., 724

Molin, Yu. N., 611, 1053, 1054
Molinaro, M., 1047, 1055
Molinoff, P. B., 465-500; 472, 474, 477, 482, 483, 489, 490, 491
Moll, G., 338
Mollenhauer, H. H., 206, 208
Moller, F., 1035
Molnar, G. P., 581
Molnar, J., 45, 46
Momose, K., 364
Monard, O., 747, 749
Moncrieff, R. W., 542
Mondelli, R., 789
Monder, C., 297, 307
Mondragon, M. C., 559
Moneno, R. E., 40
Monfoort, C. H., 280
Monier, R., 1052
Monjardino, J. P. P. V., 292
Monk, M., 834
Monod, J., 125, 129, 398, 403, 660, 662, 685, 752, 766, 836, 837, 922, 964, 1023
Monro, R. E., 414, 425, 428, 429, 432, 433, 438
Monroe, R. E., 61, 1083
Monroe, R. S., 538
Monroy, G. C., 131
Montal, M., 135, 136, 137
Montenecourt, B. S., 778, 798
Monton, D., 1005
Moody, E. E. M., 920
Moog, F., 520
Moon, A. Y., 1028
Moon, H. M., 425, 427
Mooney, E. F., 609
Moor, H., 163, 164
Moore, B. G., 1050, 1051
Moore, B. P., 538
Moore, B. W., 647, 648
Moore, C., 242, 243
Moore, E. W., 578
Moore, G. E., 970
Moore, J. E., 460
Moore, L., 844, 850
Moore, M., 610
Moore, R. L., 998
Moore, R. O., 566
Moore, R. Y., 492
Moore, S., 404
Moore, T., 509
Moore, V., 970, 979, 980
Moore, W., 638, 639
Moorehead, D. T., 490
Moorehead, W. M., 582
Moorhead, L. V., 1080, 1094
Mora, P. T., 50, 75
Morales, M., 251
Morales, M. F., 103
Moran, I. K., 578
Moravek, L., 1018, 1033
Mordoh, J., 872, 873
Morell, J. L., 450, 456, 457
Morell, P., 67, 68, 1064
Moret, V., 357
Moretti, R., 339
Morey, P., 353
Morgan, A. R., 714, 887
Morgan, C., 51
Morgan, H. E., 354, 743, 744, 745
Morgareidge, K., 520
Mori, K., 1085, 1088
Mori, M., 1062
Morii, H., 515
Morikawa, K., 1052
Morimoto, A. H., 435
Morimoto, K., 664
Morino, Y., 665
Morisawa, S., 1050
Morisset, R., 273
Moritz, A. G., 613
Moriuchi, S., 524
Moriyama, T., 885
Moriyama, Y., 787
Morizono, Y., 381, 383, 384, 386, 389, 390
Moroder, L., 1017
Morowitz, H. J., 909, 1064
Morré, D. J., 383, 390
Morris, H. P., 867
Morris, I., 365
Morris, J., 903
Morrison, J. C., 1058
Morrison, P. R., 19
Morrison, S. L., 404
Morrison, W. R., 60, 61
Morrissey, R. L., 519, 525
Morrlino, V. J., 612
Morse, D. E., 965
Morse, M., 920
Morse, R. A., 535, 538, 543
Mortimer, R. K., 1001
Mosbach, K., 672
Moscatelli, E. A., 61
Moschetto, Y., 281, 283, 295
Moser, G. B., 578
Moser, J., 538
Moses, H. L., 383
Moses, R. E., 872, 873, 874
Mosinger, B., 759
Moskowitz, G., 304
Moskowitz, J., 743, 744, 759, 762
Moss, B., 800
Moss, D. W., 575
Moss, M. L., 573-604; 592
Mosteller, R. D., 420, 422, 723, 959, 961
Mothon, S., 553
Motulsky, A. G., 593
Moudgal, N. R., 505, 506, 562
Moudrianakis, E. N., 166, 171
Moule, Y., 1062
Moustacchi, E., 923
Mowshowitz, D. B., 1064
Moyle, J., 120, 129, 130, 131, 135, 136, 142
Moyse, A., 183
Mozzi, R., 1047
Mudd, S. H., 479
Mueller, G. C., 271, 295, 303, 795, 883, 885
Mueller, J. R., 583
Mueller, K., 714, 726
Mueller, M., 582
Mueller, P., 250
Mueller, R. A., 477, 482, 483, 485, 489, 490, 491
Muench, K. H., 1047, 1058, 1060
Mühlethaler, K., 163, 164, 165
Muir, W. A., 1005
Muirhead, H., 228, 675, 680, 681, 682, 683, 1023, 1025
Mukherjee, B. B., 404
Mukherji, B., 508
Mulczyk, M., 400
Muler, A. L., 89
Müller, B., 367
Müller, H., 583
Muller, L. K., 859, 861, 863
Muller, N., 627
Muller, P. J., 1005
Muller, S. A., 522
Müller, W., 779, 782, 786, 796
Müller-Hill, B., 339, 542, 964
Müller-Oerlinghausen, B., 748
Munday, J. C. Jr., 218
Muñoz, M. L., 798
Munro, A. J., 1006
Munro, H. N., 801
Munro, J. L., 877
Munro, M., 582
Munske, K., 747
Munson, A. K., 583
Munson, P. L., 273, 743, 745
Murad, F., 492, 743, 744, 745
Murakami, M., 404, 1048
Murakami, S., 166, 198, 725
Murakami, W. T., 49, 50, 57, 75
Muramatsu, M., 1050
Murao, K., 1049
Muraoka, S., 127, 128, 133
Murata, N., 218
Murawec, T., 583
Murphy, M. R., 535

Murphy, P. M., 673
Murray, A. W., 811-26; 811, 812, 813, 816, 817, 822
Murray, G., 563, 566
Murray, K., 280, 281, 282, 284, 292, 293, 295, 296, 299
Murray, R. G. E., 36
Murrell, E. A., 551
Murthy, L. D., 294
Murthy, S. K., 503, 506
Muruyama, T., 400, 401
Musacchio, J. M., 469, 470, 473, 481, 482
Muscatello, U., 120, 121
Muscholl, E., 481, 482
Mushak, P., 578
Mushinski, J. F., 1048
Mustafa, N. E., 239, 244, 245, 247
Muthy, I. R., 568
Myasoedova, K. N., 552
Myer, Y. P., 1031
Myers, J., 203, 204
Myers, L. S. Jr., 523
Myllner, F. X., 512
Myrtle, J. F., 513, 516, 517

N

Nachlas, M. M., 378, 380, 381
Nachtigall, M., 1082
Nadler, H. L., 593
Nagai, K., 791, 792, 795
Nagano, H., 947
Nagatsu, T., 467, 469, 470, 473, 488
Nagayama, A., 800
Nagelschneider, G., 116, 335
Nagode, L. A., 523, 526
Nagy, A., 189
Nahas, G. G., 743, 744, 745, 747, 759
Naim, E., 743, 744
Nair, K. G., 746, 817
Nair, K. K., 1095, 1097
Nair, P. P., 513
Nakada, D., 752
Nakahara, C., 280
Nakai, G. S., 593
Nakai, J., 642
Nakajima, K., 470, 800, 1051
Nakajima, R., 239
Nakamoto, T., 412, 436
Nakamura, A., 611, 612
Nakamura, H., 207
Nakamura, K., 901, 910
Nakamura, S., 239
Nakamura, T., 1047
Nakane, K., 31
Nakane, P. K., 391, 392
Nakanishi, K., 787, 1053, 1081, 1083, 1084, 1085, 1090, 1092
Nakano, J., 759
Nakano, M., 68
Nakao, A., 638, 639
Nakashima, K., 366
Nakata, Y., 778
Nakaya, K., 308
Nakaya, R., 913
Nakazawa, K., 365
Nakazawa, T., 137
Namm, D. H., 354, 355
Nanci, A., 1019
Naono, S., 728, 730, 734, 834, 835
Naora, H., 424
Nara, S., 477
Narang, S. A., 875
Narasinga Rao, M. S., 1046
Nasmyth, P. A., 743, 745
Nasrallah, S., 815
Nass, G., 959, 963, 1060
Nass, M. M. K., 883, 901, 916, 917, 923, 1047
Natelson, S., 582
Nath, K., 403, 404, 405
Nathans, D., 429
Nathorst-Westfelt, L., 461
Natori, S., 402, 404, 885
Natvig, J. B., 1005
Nau, F., 1051
Nau, M. M., 414, 425, 426, 430
Navon, G., 90, 94, 623
Naworal, J., 59
Nayak, D. P., 52
Nayler, W. G., 764
Neaves, W. B., 145
Neelin, J. M., 281, 282, 293, 295
Neelon, F. A., 1055
Neerhout, R. C., 593
Neet, K. E., 1013, 1018, 1021
Neff, N. H., 484, 485
Negelein, E., 84
Negishi, T., 69
Neidhardt, F. C., 952, 956, 958, 963, 1058, 1059, 1061
Neidle, A., 429, 648
Neilands, J. B., 331
Nekhorocheff, J., 435
Nelidova, O. D., 1060
Nelson, B., 25
Nelson, D. L., 405
Nelson, E. M., 560, 562
Nelson, J., 558
Nelson, J. A., 1054
Nelson, J. H., 609, 610, 1052
Nelson, M. G., 584
Nelson, M. M., 564
Nelson, N., 136, 201
Nelson, R. D., 281
Nelson, R. F., 479
Nelson, T. E., 593
Nemchin, R. G., 780, 782
Němec, V., 1081, 1089, 1090, 1091, 1094
Nemer, M., 295, 303
Nemethy, G., 662, 685
Neri, R., 472
Nervi, A. M., 663
Nesbitt, J. A. III, 1062
Nester, E. W., 956, 958
Nestor, L., 1062
Neth, R., 432, 433
Neu, H. H., 401
Neubauer, Z., 833, 841
Neuberger, M. B., 588
Neudecker, M., 264
Neuhoff, V., 721, 723, 799, 1046
Neuman, W. F., 521
Neumann, D., 365
Neumann, H., 429
Neumann, J., 136, 198, 201
Neumann, N. P., 40
Neurath, H., 1026, 1028
Neutra, M., 44
Nevaldine, B. H., 664
Neve, P., 743, 744
Neville, D., 780, 781, 785
Neville, E., 519
Neville, P. F., 512, 515
Newberne, P. M., 562
Newcomb, E. H., 390
Newcombe, D. S., 814, 816
Newman, J., 885, 887
Newman, R. B., 592
Newmark, R. A., 609
Newsholme, E. A., 552, 553, 555
Newsome, F. F., 578
Newton, A. A., 815
Newton, G. G. F., 460, 461
Newton, J., 139
Ney, R. L., 743, 745, 754, 760
Ngai, S. H., 484
Niall, H. D., 972, 973, 979
Nichol, C. A., 579
Nichol, J. C., 664
Nichol, L. W., 655, 660, 661, 668
Nicholls, P., 145
Nichols, G. Jr., 522
Nichols, J. L., 438, 439, 1050
Nicklas, W. J., 139
Nicol, M., 506
Nicolaisen, F., 611
Nicolaysen, R., 519
Nicolis, G., 250, 251, 252
Niedieck, B., 74
Nielsen, F. H., 568
Nielsen, N. C., 118
Nielson, J. C., 1005
Nieman, R. H., 207

Niemann, C., 1021
Nierlich, D. P., 819
Niessing, J., 801
Nikaido, H., 30, 31, 32, 35
Nikaido, K., 30, 35
Nikodijevic, B., 478
Niles, E. G., 361
Nilson, B., 481
Nilson-Tillgren, T., 187
Nilsson, A., 67, 71
Nilsson, K., 61
Ninio, J., 1055, 1063
Ninomiya, K., 593
Nir, I., 386, 388, 502, 503
Nirenberg, M. W., 435, 436, 437, 1048, 1056
Nishi, A., 403, 404, 405
Nishihara, M., 859
Nishimura, J. S., 457, 461
Nishimura, K., 62, 63, 68
Nishimura, M., 136, 218
Nishimura, S., 421, 1046, 1047, 1048, 1049, 1050, 1052, 1053, 1054, 1055, 1056, 1059, 1064
Nishino, H., 1053
Nishiue, T., 763
Nishizuka, Y., 346, 361, 362, 364, 365, 414, 425, 426, 430, 431, 433, 434
Nisioka, T., 906, 913, 921, 922
Nisonoff, A., 980, 1005, 1006
Nitta, K., 722, 723, 791, 798, 799
Nixon, J. C., 581
Niyogi, S. K., 721
Niyomporn, B., 1062
Nobili, F., 457
Noble, D., 238
Noble, P. B., 594
Noble, R. P., 582
Noble, R. W., 339, 658
Nobuoka, M., 578
Noda, L., 623
Noel, S. P., 592
Noggle, J. H., 624, 1053
Noguchi, A., 794
Nohara, H., 291
Nolan, C., 349, 351, 1031
Noland, B. J., 293, 294, 295
Noller, H. F., 684
Noltman, E. A., 664
Nomoto, S., 579
Nomura, J., 644, 645, 646
Nomura, M., 412, 715, 912
Norberg, K. A., 465, 466
Nordenbrand, K., 137
Nordin, A. A., 970
Nordman, C. E., 779, 786
Norgard, D. W., 1081, 1082, 1088, 1094
Norling, B., 120, 124, 129
Norman, A., 915
Norman, A. W., 512, 513, 515, 516, 517, 518, 523, 525, 526
North, A. C. T., 1015, 1016, 1020, 1021, 1022
Northam, B. E., 580
Northcote, D. H., 40
Northrop, D. B., 663
Northrop, G., 787
Northrop, R. L., 787
Northrup, L. G., 273
Norton, W. T., 636, 637
Norval, M., 33
Nossal, G. J. V., 970
Nossal, N. G., 866
Novacev, V. P., 759, 761
Novak, L. P., 553
Novák, R. L., 721, 722
Novák, V. J. A., 1080, 1085, 1094, 1095
Novelli, G. D., 364, 452, 456, 1045, 1046, 1047, 1048, 1050, 1051, 1056, 1057, 1059
Novello, F., 801
Novick, A., 917, 931
Novick, R. P., 901, 906, 910, 913, 914, 922, 924, 931
Novikoff, A. B., 379, 380, 381, 382, 383, 390, 391
Novoa, W. B., 348, 349, 351
Novotny, J., 976
Nowoczek, G., 66
Nozawa, R., 885
Ntiesch, J., 722, 798, 799
Numa, S., 663, 677
Nurk, E., 812
Nurmikko, V., 1061
Nussbaum, A. L., 859
Nussenzweig, V., 970
Nuttall, F. G., 348, 354, 355
Nutting, W. H., 537, 539
Nuzzo, F., 885
Nyggard, A. P., 273
Nyhan, R. F., 582
Nyhan, W. L., 593, 811, 814, 816, 817

O

Oais, C. F., 1058
Oberlander, H., 1096
Oberleas, D., 553, 555
Obinata, M., 885
Obrenovitch, A., 885
O'Brien, D., 574, 592
O'Brien, J. F., 1049
O'Brien, J. S., 73
Obukhova, L. V., 1054
Ochiai, H., 1055
Ochoa, S., 411, 413, 414, 415
Ochs, S., 486
Ockner, R. K., 513
O'Connell, E. L., 628
O'Conner, M., 654
O'Connor, J. D., 61
Oda, K., 829, 1056
Oda, T., 130
Odintsova, M. S., 187, 191
O'Donoghue, P. N., 551, 556, 557
Oeser, A., 384
Ofengand, E. J., 411
Ofengand, J., 426, 432, 1046, 1054, 1057
Ogata, K., 291
Ogata, R. T., 231, 1023
Ogawa, H., 901
Ogawa, K., 379, 383, 384, 390
Ogawa, S., 229, 230, 231, 619
Ogawa, T., 175, 176, 206, 834, 843, 845, 887, 889, 930
Ogawa, Y., 280, 281, 283, 284, 286, 292, 295, 300, 304
Ogihara, Y., 802
Ohad, I., 181, 182, 184, 211, 213
O'Hanlon, J. F., 580
Ohashi, M., 841, 890
Ohba, Y., 302, 802
Ohkawa, K. I., 117
Ohki, M., 920, 921, 929, 1085, 1088
Ohki, R., 210
Ohlsson, B. M., 1057
Ohmann, E., 365
Ohms, J., 979, 980, 1004
Ohms, J. J., 974, 980, 998, 1004
Ohnishi, M., 612, 613
Ohnishi, S., 227
Ohnishi, T., 118, 121, 123
Ohno, S., 1000
Ohta, T., 414, 1053, 1060
Ohtaki, T., 1094
Ohuchi, T., 484
Oikawa, A., 365
Oishi, M., 878, 885, 886, 1064
Oka, M., 484
Okabe, K., 67
Okada, M., 582
Okada, S., 73, 885
Okamoto, T., 412, 725, 727, 728, 733
Okazaki, K., 860, 885, 887
Okazaki, R., 665, 871, 872, 876, 884, 885, 887

Okazaki, T., 859, 860, 863, 872, 885, 887
Okuda, K., 453
Okuda, S., 39
Okumuki, K., 1029, 1030, 1031
Okuyama, H., 365
Olafson, R. W., 641
Oláh, I., 308
O'Leary, M. H., 678
Oleinick, N. L., 798
Olins, A. L., 297, 298, 299
Olins, D. E., 297, 298, 299
Oliver, D., 289, 297
Oliver, I. T., 753
Oliver, J. M., 821
Oliver, R. M., 672
Oliver, W. J., 814, 816
Olivera, B. M., 875, 876, 901, 902, 903
Oliverio, A., 488
Oliverio, V. T., 796
Olmsted, J. B., 643
Olmsted, M. R., 677
Olney, J. W., 647, 648
Olsen, B. R., 664, 1064
Olson, J. A., 57, 503
Olson, J. M., 175, 177, 198, 199, 211
Olson, K. C., 1048
Olson, M. S., 128, 146
Olson, R. A., 175, 177
Olson, R. E., 507
Oltmanns, D., 581
Oltzik, R., 124
O'Malley, B. W., 743, 745
Omenn, G., 272, 273, 1033
Omoto, S., 795
Omura, S., 794
Onda, M., 794
Ondrejickova, O., 457
Ono, M., 404
Ono, T., 867, 885
Ono, Y., 425, 426, 427, 431
Ontjes, D. A., 272, 273, 1018, 1034
Ooi, T., 666
Ooizumi, K., 524
Oosterbaan, R. A., 878, 1028
Oppenheim, A. B., 833, 841
Oppenheimer, H. L., 1026, 1028
Oppenheimer, S. B., 48
Opschoor, A., 901, 904
Ord, M. G., 290, 292, 293, 294, 295, 296, 297, 365
Orengo, A., 305
Orezzi, P., 789
Orias, E., 1057
Oriel, P. J., 302
Orloff, J., 743, 745, 762, 763
Orlova, L. V., 303
Orlova, T. I., 458, 461
Ormerod, M. G., 885
Orr, C. W., 48
Orr, C. W. M., 863, 864, 865
Orr, T. E., 33
Orrell, K. G., 613
Orrenuis, S., 383, 390
Orsulak, P. J., 821
Orton, W. L., 365
Ortwerth, B. J., 1051
Osborn, M., 673, 1057
Osborn, M. J., 30, 32, 35
Oscal, L. B., 117
Oser, B. L., 558, 560, 562, 564
Oshino, R., 148
Oshinsky, C. K., 875
Oshiro, Y., 638, 639
Ostberg, A., 487
Osterland, C. K., 1005
O'Sullivan, D. G., 379
O'Sullivan, W. J., 623
Otake, H., 365
Otani, S., 453
O'Toole, A. G., 352, 750, 751, 752
Ott, D. G., 869
Ottani, V., 552
Ottaway, J. H., 1058
Ottoson, R., 403
Oudin, J., 980, 1001, 1002, 1005
Oughton, B. M., 612
Ovchinnikov, Yu. A., 612
Ove, P., 857, 867
Overby, R. L., 1048
Overgaard-Hansen, K., 861, 865
Owens, I. S., 294
Owens, O., 203, 218
Owens, S. L., 1058, 1060
Oxender, D. L., 398
Oyama, Y., 800
Öye, I., 354, 743, 744, 745
Ozaki, M., 471
Ozawa, E., 351, 355
Ozawa, T., 666
Ozeki, H., 901, 910, 912, 1064

P

Pace, N. R., 800
Pachler, K. G. R., 611, 612
Packer, L., 136, 144, 149, 198, 239, 240, 244, 245, 247
Paddle, B. M., 145, 146, 147
Padovani, F., 538
Paetkau, V. H., 119, 669, 864, 887
Page, S. G., 383
Paigen, K., 268
Paik, W. K., 284, 290, 291, 292, 293
Pain, R. H., 47
Painter, A. A., 133
Painter, R. B., 885
Palade, G. E., 45, 46, 47, 181, 182, 185, 380, 383
Palau, J., 280, 282
Palazzuoli, V., 520
Pallanza, R., 798
Pallotta, D., 281, 307
Palm, D., 471
Palm, P., 714, 715, 717, 722
Palm, W. H., 980
Palmer, F. B., 638, 639
Palmer, G., 122, 335, 666, 1031, 1032
Palmieri, F., 120, 139, 140, 141, 144
Palmieri, G., 544
Pandit, U. K., 1019, 1029
Paneque, A., 365
Panet, A., 1055
Panganamala, R. V., 61
Panikkar, K. R., 508
Pantaloni, D., 334, 667
Panten, K., 248
Panyim, S., 280, 281, 282, 289, 291, 297
Paoletti, C., 885, 918
Paolillo, L., 613
Paolucci, A. M., 561
Papa, S., 135, 136, 139, 140, 144, 147, 148, 916
Papadimitriou, J. M., 379
Papageorgiou, G., 218
Papaioannon, R., 821
Papas, T. S., 1058, 1060
Pappenheimer, A. M. Jr., 361, 433, 434
Paradies, G., 144
Paradies, H. H., 1062, 1063
Paranchych, W., 412, 1055
Pardee, A. B., 84, 100, 101, 404
Pardon, J. F., 302, 306
Parekh, A. C., 579, 583
Parekh, C. K., 513
Parenti-Rosina, R., 415
Parfitt, G. D., 84
Parin, A. V., 1058
Parisi, A. F., 562, 566
Parisi, B., 201, 435
Park, C., 578, 582
Park, C. M., 681
Park, C. R., 354, 761, 763, 764
Park, E. A., 521
Park, J. T., 1062
Park, R. B., 162, 163, 164, 165, 166, 171, 172, 178, 217
Parker, A. J., 1020
Parker, C. W., 101, 743, 745, 749
Parker, D. C., 273

Parkhouse, R. M. E., 1006
Parkhurst, L. J., 337, 682
Parkinson, D. K., 525
Parkinson, J. S., 850
Parks, P. C., 1028, 1031, 1032
Parmeggiani, A., 425, 426, 431, 669
Parravano, C., 626
Parry, D. J., 581
Parsons, D. F., 381, 385
Parsons, S. M., 626, 1017, 1021
Parsons, V., 555
Partlow, L. M., 646, 647
Partridge, C. W. H., 945, 948
Pascal, T. A., 75
Pasedach, H., 1085, 1088
Pasquali, P., 552
Pasqualucci, C. R., 798
Passannante, A. J., 581, 582
Passant, L. P., 583
Passavoy, M., 520
Passen, S., 583
Passonneau, J. V., 348, 577, 756
Pastan, I., 730, 743, 745, 752, 753, 754, 765, 766
Pasternak, C. A., 508
Patel, A. B., 593
Patel, C. P., 583
Patel, M. S., 563
Patel, N. G., 1096
Paterson, A. R. P., 821
Paterson, C. R., 521
Paterson, M. C., 870
Paterson, P., 638
Patterson, B. D., 292
Pauk, G., 743, 745
Paul, C., 970, 972, 979, 980
Paul, J., 304, 305
Paul, R., 789
Paul, W. E., 275
Pauli, R. M., 917
Paulin, D., 1055
Pauling, C., 877, 885, 887
Pauling, L., 685, 1025
Paulus, J., 452, 455
Pavan, M., 538
Pawelkiewicz, J., 1046, 1047
Pawlson, L. G., 743, 745
Pawse, A. R., 293, 294
Pawson, B. A., 1085
Payne, J. W., 397, 398, 399, 402
Payne, M. R., 813
Payne, P. R., 551, 556, 557
Peacey, M., 834
Peacocke, A. R., 280, 623, 782, 1052
Peanasky, R. J., 331
Peard, M. G., 250
Pearlman-Kothencz, M., 36
Pearse, A. G. E., 376, 378, 379, 380, 381, 382
Pearson, C. M., 593
Pearson, D., 291
Pearson, J. E., 628
Pearson, R. L., 1046
Peart, W. S., 466
Pease, D. C., 379, 381
Pech, K., 1046
Pechet, M., 526, 763
Pecht, I., 101, 326
Pedersen, E. J., 611, 613
Pedersen, J. L., 145, 146
Pedersen, P. L., 135
Peisach, J., 615, 619
Pek, S., 392
Pelc, S. R., 507
Pellegrino de Iraldi, A., 487, 636
Pelletier, O., 583
Peña, A., 129
Penefsky, H. S., 149, 677
Peng, C. T., 512
Penhoet, E. E., 678
Penido, E., 914, 924
Penkett, S. A. P., 628
Penman, S., 420, 609
Penn, G. M., 1005
Pennington, C. J. Jr., 1047
Penniston, J. T., 116
Pennock, C. A., 583
Pennock, J. F., 216
Pensky, J., 270
Perani, A., 435
Percy, A. K., 73, 593
Pereira da Silva, L., 832, 833, 841, 887, 921, 928, 929
Peretta, M., 815
Perez, V. J., 647, 648
Perez-Polo, J. R., 646
Perham, R. N., 684
Perini, F., 202
Perkins, J. P., 294, 346, 350, 364, 365, 748, 755, 758
Perlman, D., 449-64; 402, 404, 450, 451, 456, 458, 461
Perlman, R. L., 89, 91, 92, 93, 94, 96, 99, 100, 730, 752, 753, 765, 766
Permogorov, V. I., 300, 302, 779
Perner, E., 187
Pernis, B., 970, 1001, 1005
Pero, J., 833
Peron, F. G., 760
Perrelli, W. V., 580
Perrin, D., 268, 951
Perrin, J., 86, 87
Perrott-Yee, S., 746, 749
Perry, E., 998
Perry, M. C., 763
Perry, M. J., 84
Perry, S. V., 293, 815
Persico, F., 718
Person, S., 1057
Personne, P., 385, 743
Persson, A., 382
Persson, B., 124
Perutz, M. F., 228, 230, 336, 337, 619, 675, 680, 681, 682, 1018, 1020, 1023, 1024, 1025, 1026
Pessah, N., 763
Pestka, S., 697-710; 430, 1056, 1057
Peter, J. B., 593
Peterkofsky, A., 1049, 1050, 1051
Peters, D. A., 470
Peters, G., 73
Peters, J. H., 586
Peters, V. B., 383, 390
Peters, V. J., 398
Peterson, E. A., 275
Peterson, H. M., 998, 1003
Peterson, R. D., 754
Petit, J.-F., 1062
Petrack, B., 469, 470
Petrissant, G., 1051, 1059
Pette, D., 117, 118, 366, 672
Pettijohn, D. E., 731, 732
Pettit, F. H., 346, 355, 356
Peyton, G. A., 580
Pfaff, E., 141
Pfaff, K. J., 581
Pfefferkorn, E. R., 51
Pfeifhofer, A. O., 165, 166
Pfister, R., 509
Pfleiderer, G., 1035, 1036
Pflugfelder, O., 1080
Pflumm, M., 979, 980, 1005
Phang, J. M., 954, 955
Phares, E. F., 1046
Pharo, R. L., 122
Phelan, J., 821
Phelps, D. E., 608
Phifer, R. F., 392
Philipps, G. H., 1057, 1062
Philipps, J. H., 1050
Philippsen, P., 1055, 1056
Phillips, A. P., 880
Phillips, A. T., 675
Phillips, D. C., 1015, 1016, 1020, 1021, 1022
Phillips, D. M. P., 279, 280, 281, 282, 283, 284, 285, 289, 290, 295, 296, 297, 298, 302, 365
Phillips, G. E., 580
Phillips, G. R., 1049
Phillips, L. A., 416
Phillips, P. H., 560
Phillips, R. C., 127
Phillips, W. D., 611, 612, 615, 616, 617, 1029, 1031
Phung Nhu Hung, S., 164, 183
Piatelli, M., 613

Pickett, E. E., 578
Piepho, H., 1082, 1094
Pierard, A., 950
Pierce, G. B. Jr., 391, 392
Pierrard, B., 1085
Pierre, K. J., 813
Pierucci, O., 926
Pietsch, P., 298, 795, 796, 856
Piette, L. H., 216, 625
Pigiet, V., 679
Piko, L., 901, 917
Pilarski, L. M., 729, 839
Pileggi, V. J., 583
Pillai, P. A., 486
Pillinger, D. J., 1050, 1054
Piltch, A., 645
Pilz, H., 62
Pilz, I., 1063
Pincus, G., 565
Pinder, J. C., 998
Pine, M. J., 402, 404
Pink, J. R. L., 970, 979, 980, 993, 996, 1004, 1005
Pinkerton, T., 888
Pinna, L., 357
Pinto, P. V. C., 581
Pinto da Silva, P., 164
Pioda, L. A. R., 579, 613
Piomelli, S., 817
Piperno, J. R., 398
Piras, M. M., 352, 354
Piras, R., 352, 354, 355
Pirie, A., 508
Pirrotta, V., 838, 839
Pirt, S. J., 247, 248
Pistorius, E., 203, 204, 208, 215
Pitcher, S. E., 980
Pitha, J., 609, 610
Pitha, M., 609, 610
Pitot, H. C., 440, 754
Pitt, G. A. J., 505, 506, 507, 510, 562
Pitt, W. W., 586, 591
Pittard, J., 944, 965
Pittendrigh, C. S., 249
Pittinger, C., 578
Pittman, K. A., 398, 399
Planta, R. J., 998
Plapinger, R. E., 381, 386, 388, 389, 390
Platel, A., 802
Platman, S. R., 578
Plaut, G. W. E., 668, 669, 675, 688
Pleasants, J. R., 553
Pleiss, M., 1055
Pletscher, A., 471, 477, 482
Pliske, T. E., 535, 537
Plsek, R. W., 545
Pöch, G., 747
Pochon, F., 1052
Podolsky, R. J., 1015
Podulso, S. E., 636
Poduška, K., 1082, 1087, 1092
Pogell, B. M., 263, 264, 672
Pogo, A. O., 285, 291
Pogo, B. G. T., 291, 292, 800, 878
Pogson, C. I., 339, 340
Pohl, F., 319
Pohl, S. L., 743, 744, 745, 746, 759
Pohorecky, L. A., 474
Poillon, W. N., 675
Poisner, A. M., 483, 484
Polacios, C., 74
Polito, A. J., 59, 61
Pollak, J. K., 383, 390
Pollak, O. J., 554
Pollard, C. J., 743, 744
Pollard, H., 262, 263, 264, 267, 268
Pollock, A. L., 581
Pollock, M. R., 404, 405
Polmar, S. H., 1005
Polsinelli, M., 887
Polson, J. B., 752
Polz, G., 421
Pommer, H., 1085, 1088
Pon, N. G., 162
Ponchon, G., 516
Ponstingl, H., 976
Pontremoli, S., 366
Poock, A., 578
Poole, A. R., 510
Poonian, M. S., 274
Popie, J. A., 607
Poralla, K., 959
Porath, J., 260, 267, 1018
Porrodin, G., 931
Porter, D. Jr., 492
Porter, C. C., 471
Porter, D. R., 189
Porter, G., 104, 564
Porter, K. R., 642
Porter, M. T., 73
Porter, R. R., 47, 260, 273, 1001, 1005
Portnova, S. L., 612
Portnoy, B., 479
Portolani, M., 801
Posner, A. S., 522
Posner, J. B., 354, 743, 744, 748
Possingham, J. V., 187, 190
Possompes, B., 1097
Posternak, T., 746, 750, 759
Pottage, J., 581
Potter, J. L., 509
Potter, L. T., 466, 473, 480, 482, 484, 485, 636
Potter, M., 973, 974, 997, 1005, 1048
Potter, V. R., 563
Poulik, M. D., 75
Poulsen, H. E., 821
Pouwels, P. H., 878, 901, 902, 904, 906
Pouyet, J., 667, 779, 784
Powell, C. A., 354, 750
Powell, D. E. B., 591
Powell, W. H., 1085
Power, D. F., 280, 282
Powis, R., 209, 211
Poyart, C. F., 759
Prader, A., 582
Pradhan, D. S., 294
Pragay, D. A., 581
Prager, L. K., 178
Prahl, J. W., 1001, 1005, 1006
Prasad, A. S., 553, 555
Pratt, D., 636, 638, 882, 883
Pratt, L. P., 211
Pre, J., 578
Preddie, E. C., 674, 1058
Prell, H. H., 920
Prelli, F., 1005
Premsagar, K. D. A., 1046
Preparata, R., 857
Prescott, J. M., 398, 404
Prescott, L. M., 668
Press, E. M., 260, 273, 979, 980, 1005
Pressman, B. C., 120, 127, 135, 136, 142, 145, 147, 238, 243, 244, 245, 384, 451, 613
Pressman, D., 970
Prestayko, A. W., 1047
Prestegard, J. H., 609, 613
Preston, B. N., 473
Preuss, A., 901
Prezioso, G., 140
Price, T. D., 750
Pricer, W., 743, 745, 754
Prichard, P. M., 423, 424
Priess, H., 720
Priestley, G. C., 45
Prigogine, J., 250, 251, 252, 253
Prihar, H. A., 40
Prihar, H. S., 356
Prince, H., 796
Pringle, J. R., 673
Pringle, J. W. S., 249
Prinn, W., 378
Printz, D. B., 962
Pritchard, E. T., 69
Pritchard, J. B., 815, 820, 821
Pritchard, R. H., 924, 927
Privat de Garilhe, M., 1032
Privett, O. S., 555
Prochoroff, N., 472
Prockop, D. J., 457
Prostenik, M., 60, 65
Prothero, J. W., 300
Pruitt, C. D., 580
Prusiner, S. B., 145, 146, 147

Pruyn, M. L., 45
Pryor, J., 754
Ptashne, M., 835, 838, 839, 920, 922, 940, 964
Pubols, M. H., 524
Puddu, P., 552
Pulis, J. F., 1080, 1094
Pulkrabek, P., 1052
Pullman, M. E., 131
Pulsinelli, W. A., 743
Punnet, T., 200
Purdy, W. C., 583, 594
Purkhold, A., 466
Purvis, J. L., 140
Pustoshilova, N. M., 1054
Putnam, F. W., 970, 972, 979, 980
Putter, I., 608, 614, 615, 618
Pybus, J. N., 578
Pye, K., 238, 239, 240, 241, 242, 243, 247, 248, 251

Q

Quagliariello, E., 120, 135, 139, 140, 141, 144, 147, 148, 916
Quarterman, J., 563
Quattrocchi, R., 986
Quilico, A., 538
Quincey, R. V., 1064
Quinn, W. G., 883, 884, 925, 929, 930
Quinocho, F. A., 682
Quintrell, N., 868

R

Raacke, I. D., 1046
Rabadjija, M., 488, 489
Rabb, J. M., 145
Rabideau, K., 833, 841
Rabin, B. R., 325, 333
Rabinowitch, E., 178, 198
Rabinowitz, J. C., 202
Rabinowitz, K. W., 662, 688
Rabinowitz, M., 743, 867, 916, 917, 923
Rabinowitz, Y., 594
Rabinsohn, Y., 66
Rabussay, D., 714, 715, 717, 799
Raccuglia, G., 555
Rachaman, E. S., 66, 74
Racker, E., 120, 121, 125, 126, 131, 135, 145, 166, 1029, 1031
Radda, G. K., 149, 150
Radde, I. C., 525
Radding, C. M., 829, 840, 864
Rader, R. L., 173
Radhakrishnamurthy, B., 43
Radin, N. S., 62, 67, 68, 71
Radloff, R., 901, 902, 903, 906, 914, 917, 919
Raeburn, S., 434
Rafael, J., 145, 146
Raffel, S., 638
Raftery, M. A., 622, 626, 627, 1017, 1021
Ragan, C. I., 123, 124
Raghupathy, E., 743, 745
Rahn, R. O., 92, 94, 104
Raiborn, C., 636
Raijman, L., 677
Raineri, R. R., 664
Rains, T. C., 574
Räisänen, L., 384, 390
Raisz, L. G., 516, 522
Raj, B. K., 1046
Rajalakshmi, S., 814
RajBhandary, U. L., 421, 1048, 1055
Rajender, S., 1032
Rall, S. C., 280, 281, 283, 286, 295
Rall, T., 743, 744
Rall, T. W., 492, 741, 742, 743, 744, 745, 747, 755, 756, 760, 766
Ramaiah, A., 756
Ramareddy, G., 856
Rambourg, A., 44
Ramot, B., 593, 821, 822
Ramponi, G., 293
Ramwell, P. W., 743, 744, 759
Ramuz, M., 718
Randerath, E., 1046
Randerath, K., 1046
Ranney, H. M., 681
Rao, G. S. K., 1081, 1085
Rao, K. V., 794, 803
Rao, N. A., 122
Rao, P., 432, 433
Rapoport, H., 537, 539
Rapoport, S., 820
Rappoport, A. E., 584
Rappoport, S., 1055
Rapport, M. M., 71, 74
Raskas, H. J., 412, 420
Rasmussen, H., 523, 526, 644, 763, 764, 765
Rasmussen, P. S., 280, 281, 282, 284
Ratliff, C. R., 581, 582
Ratliff, R. L., 713, 715, 719, 720, 869
Ratner, D. I., 779
Ratner, S., 677
Rattle, H. W. E., 300, 613
Ratusky, J., 1081, 1082, 1084, 1090
Rauch, H., 296
Rauch, H. C., 638
Rauh, R. D., 88
Ravel, J. M., 425, 426, 427, 959
Ravin, V. K., 913, 922
Rawitscher, M., 1015
Rawlinson, W. A., 1031
Rawson, J. R., 190
Ray, D. S., 187, 888, 910, 929
Ray, T. K., 743, 744, 745
Ray, W. J., 687, 1026, 1028
Raz, A., 503
Razin, A., 813, 820, 821, 822, 888, 927, 929, 932
Read, J. S., 536
Read, W. P., 5
Reavill, R. E., 627
Rebentish, B. A., 300, 302
Recheigl, M. Jr., 366
Rechler, M. M., 418
Reddy, B. S., 553
Reddy, W. J., 743, 744
Redfearn, E. R., 214, 215, 217
Redfield, A. C., 5
Redfield, B. G., 411, 420, 457, 458, 461, 477, 492
Redman, C. M., 45
Reed, C. E., 584
Reed, D. W., 206
Reed, L. J., 346, 355, 356, 672
Reed, N., 146, 147
Reed, W. B., 816
Reeder, R. H., 729
Reeke, G. N., 682
Rees, K. R., 791
Reese, R. S., 391
Reeves, P., 912
Reeves, R. H., 1046
Reggiani, M., 789, 790, 791
Regitz, G., 204
Regnier, F. E., 533-48; 534, 538, 541, 545
Rehn, K., 37
Reich, E., 777, 778, 779, 780, 781, 782, 785, 786, 787, 788, 789, 790, 791, 916, 1052, 1062
Reichardt, L., 838
Reichler, A. S., 580
Reichlin, M., 339, 658
Reichmann, M. E., 673
Reid, B. R., 1055
Reid, J. D., 471
Reid, J. V. O., 488
Reid, P., 519, 525
Reid, P. J., 1057
Reid, R. A., 142
Reid, R. W., 587
Reid, W. D., 484, 485, 743, 744
Reilly, E., 273
Reimann, E. M., 350, 357, 364, 365, 755, 759
Reiner, M., 576
Reinert, J. C., 173
Reinhammer, B., 404
Reinke, W. A., 589
Reis, D. J., 490

Reis, V., 610
Reis-Husson, F., 171, 172
Reisfeld, R. A., 1001, 1005
Reisher, S., 880
Reisler, E., 656, 666, 667, 668
Reisner, A. H., 674
Reissig, J. L., 951
Reiter, H., 856
Reithel, F. J., 654, 662, 672
Reitman, S., 574
Reitsma, H. J., 141
Rejnek, J., 1005
Remington, L., 1048
Remold-O'Donnell, E., 722
Remy, P., 1058
Renaud, F. L., 643
Renger, G., 220, 221
Renger, H., 928
Renkonen, O., 59, 61, 74
Renneboog-Squilbin, C., 1005
Rennert, O. M., 960, 1050, 1061, 1062
Renold, A. E., 746, 759
Renwick, J. A. A., 540
Ressler, N., 85
Retel, J., 998
Rethy, V. B., 470
Reuber, M. D., 557
Reuckert, R. R., 673
Revel, M., 413, 414, 415
Revelas, E., 926
Revuelta, A., 483
Reyes, P., 560
Reynafarje, B., 137
Reynolds, J. A., 325, 664, 673
Reynolds, M. D., 574
Reynolds, R. J. W., 614
Reynolds, S. J., 340
Reznikoff, W. S., 752
Rhear, R. W., 1046
Rhoades, L., 657
Rhoades, M., 901, 902, 903, 910, 930
Rhode, S. L., 790
Ricca, A., 538
Ricceri, G., 815
Rice, E. W., 578
Rich, A., 186, 187, 273, 404, 411, 420, 429, 1053, 1062, 1063
Richards, B. M., 302, 306
Richards, F. M., 272, 379, 1015, 1017, 1021
Richards, J. H., 627
Richards, R. E., 623
Richardson, C. C., 856, 857, 858, 859, 861, 863, 864, 865, 866, 868, 870, 871, 872, 873, 874, 875, 876, 878, 884, 885, 887, 890, 901, 927
Richardson, D. C., 1032
Richardson, J. P., 712, 713, 714, 719, 720, 728, 732, 733, 778, 791
Richardson, K. C., 461, 480, 482
Richmond, M. H., 919
Richter, D., 362, 432, 435, 475
Richterich, R., 574
Rick, C. M., 189
Rickards, R. W., 457
Rickenberg, H. V., 741-74; 398, 747, 749, 753, 944
Ricklis, S., 1097
Riddick, J. H. Jr., 584
Riddiford, L. M., 535, 542, 1083, 1094, 1095
Riddle, M., 293, 294, 1051
Riedel, B., 663
Riekkinen, P. J., 641
Rieske, J. S., 125, 126
Ries-Lesic, B., 60, 65
Riesner, D., 1053, 1056
Rifkin, M., 490
Rifkind, J. M., 297, 298
Rigault, M. Y. A., 117
Riggs, A. D., 885, 890, 909, 915
Riks, W. F., 118
Ril, N., 84
Riley, D. R., 562
Riley, G. A., 351, 352, 756
Riley, W. D., 346, 350, 365, 675, 756
Riman, J., 1048
Rinaldi, G. M., 431
Rinderknecht, H., 581
Rinehart, K. L. Jr., 798, 800
Rines, H. W., 945
Ring, A. M., 574
Ringborg, U., 1046
Ringelman, E., 663, 677
Ringertz, N. R., 780
Ringler, R. L., 122
Riordan, J. F., 679, 1013, 1018
Riou, G., 901, 918, 934
Ris, H., 850, 901, 915
Ristow, H., 420
Ristow, S. C., 1054
Ritossa, F., 998
Rittenberg, D., 820
Ritter, P. O., 1059
Riva, S., 879
Rivas, E., 169, 171, 172, 173, 185
Rivat, L., 1005
Rivera, M. E., 62
Rizak, M. A., 759
Rizza, V., 61
Ro, I. H., 593
Roan, J. H., 522
Ro'Ane, J. T., 743, 745, 746, 748, 759
Roark, D. E., 655
Robb, D. A., 665
Robbins, E., 295, 303
Robbins, J., 100
Robbins, P. W., 30, 49, 51
Robbins, W. E., 1083, 1098
Roberts, A. B., 503
Roberts, C. N., 293, 294, 295
Roberts, D., 581
Roberts, G. C. K., 606, 609, 610, 611, 614, 616, 617, 620, 628
Roberts, J. C., 145
Roberts, J. W., 733, 838, 839, 842
Roberts, P. A., 331
Roberts, S., 291, 760, 761
Roberts, W. K., 1032
Roberts, W. S. L., 1062
Robertson, D. M., 638, 639
Robertson, D. S., 189
Robertson, E. A., 379
Robertson, H. D., 419
Robertson, J. S., 557
Robertson, W., 743, 745, 746
Robertson, W. G., 578
Robertus, J. D., 683, 1026, 1027, 1028, 1029
Robins, H. I., 1046
Robins, R. K., 609, 611
Robinson, A. B., 640
Robinson, B. H., 130, 140
Robinson, D., 73
Robinson, G. B., 45, 46
Robinson, G. W., 87, 88, 955
Robinson, J., 552, 553, 555, 579
Robinson, W. E., 273
Robison, A. K., 743, 744
Robison, B., 1052
Robison, G. A., 354, 357, 467, 484, 491, 492, 742, 743, 744, 745, 758, 766
Roblin, R., 417
Robson, B., 331
Rocchi, R., 1017
Rock, M. K., 577
Rockoff, S. D., 554
Rocks, M. J., 582
Rodbell, M., 743, 744, 745, 746, 759
Rodesch, F., 743, 744
Rodgerson, D. O., 574, 578, 592
Rodin, J. O., 536, 537, 540, 544
Rodionov, V. M., 303
Rodkey, F. L., 1031
Rodnight, R., 758
Rodriguez, L., 307
Rodriguez de Lores Arnaiz, G., 636, 743, 746, 747
Rodriguez-López, M., 798
Rodstrom, R., 675
Rodwell, V. W., 366

Roelofs, W. L., 536, 544
Roels, O. A., 509
Roffi, J., 474, 489
Rogers, L. B., 90
Rogers, L. J., 190
Rogers, P., 884, 925
Rogers, Q. R., 560
Rogers, W. E. Jr., 504, 506, 508
Rogg, H., 1046, 1048, 1049
Roginski, E. E., 551, 553
Rognstad, R., 119
Rogozinska, J. H., 1049
Roholt, O. A. Jr., 460
Rohr, H., 521
Roitman, A., 71
Roizman, B., 52
Rokutanda, M., 868
Roland, D., 584
Rolant, F., 581
Roll, P. M., 821
Röller, H., 535, 536, 1081, 1082, 1083, 1084, 1085, 1088, 1090, 1091, 1092, 1094, 1095
Roman, S. A., 1085, 1088
Romaňuk, M., 1080, 1081, 1082, 1083, 1084, 1085, 1087, 1088, 1089, 1090, 1091, 1092, 1095, 1097, 1098
Römer, R., 1053, 1056
Ron, E. Z., 416
Roncari, G., 456
Rongine De FeKete, M. A., 264
Roodyn, D. B., 377
Rooney, S., 821
Roos, D., 147, 148
Root, D. M., 508
Roots, L., 384
Ropartz, C., 1005
Rörsch, A., 834
Rosa, C. G., 384, 390
Rosa, J. J., 411, 1063
Röschenthaler, R., 1046
Rose, H. M., 51
Rose, I. A., 341, 628
Rose, J. K., 723
Rose, M., 1083, 1096
Rosell, S., 480, 481, 482
Rosell-Perez, M., 353
Roseman, S., 30, 41, 43, 44, 48, 49, 50, 69, 70
Rosen, B., 1055, 1057
Rosen, L., 1051
Rosen, O. M., 743, 817
Rosen, S. I., 383, 390
Rosen, S. M., 518, 743
Rosenbaum, J., 643
Rosenberg, A., 61
Rosenberg, A. H., 1047
Rosenberg, D., 857, 863, 864
Rosenberg, E., 1062
Rosenberg, R. M., 614, 615
Rosenbloom, F. M., 593, 811, 814, 816, 817, 818, 821, 822
Rosenblum, E. N., 800
Rosenblum, I. Y., 976
Rosenfeld, M. G., 743, 745
Rosengren, E., 466
Rosenqvist, H., 1061
Rosenthal, A. S., 383
Rosenwasser, L. J., 780
Rosevear, J. W., 581
Roskoski, R., 453, 454, 455, 456, 461
Rosman, M., 429, 438
Rosner, F., 593
Rosner, J. L., 834
Ross, C. A., 325
Ross, G. T., 474
Ross, P. D., 359
Ross, R. T., 199
Ross, S. B., 478
Rossetti, G. P., 656
Rossi, C., 137
Rossi, C. R., 146
Rossi, C. S., 137, 140
Rossi, E., 41, 124, 142
Rossi, G. L., 1021, 1022
Rossi-Bernardi, L., 135, 136, 317, 681, 1024, 1025
Rossi-Fanelli, A., 339
Rossmann, M. G., 683, 684, 1035, 1036
Rosso, G., 511
Rosso, S. W., 189
Rostenberg, I., 1005
Roth, C., 283
Roth, J., 100, 743, 745, 754
Roth, J. R., 956, 963
Roth, P., 764
Roth, R. H., 477, 482
Roth, T. F., 901, 911, 912, 922
Rothfield, L., 36, 37
Rothman, F., 1055, 1057
Rothman, J., 919
Rothman, L. B., 354
Rothman, S. S., 518
Rothman-Denes, L. B., 352
Rothstein, H., 281
Rotman, B., 403
Rottman, F., 818, 819
Roufa, D. J., 430
Rouge, M., 1058
Rouget, P., 346, 363, 1058, 1059, 1061
Roughton, F. J. W., 317, 336
Rouquier, M., 522
Rouser, G., 58, 61
Rousseau, P. Y., 1005
Rovery, M., 1026
Rowbury, R. J., 956, 958, 962, 965
Rowe, A. J., 643
Rowe, J., 674
Rowe, P. B., 818, 819
Rownd, R., 913, 923, 932
Roy, A., 778
Roy, A. D., 558
Roy, A. V., 581
Roy, C., 404
Roy, K. L., 1046, 1049, 1058, 1059
Roy, R. B., 582
Roy-Burman, P., 776
Roychoudhury, T., 866
Rozenberg, M. C., 815
Rozijn, T. H., 280
Rozman, I. M., 89
Rubalcava, B., 149
Rubin, C. S., 817
Rubin, H., 253
Rubin, I. B., 580, 1059
Rubin, R. J., 592
Rubin, R. P., 483
Rubinstein, M., 1055
Ruddle, F., 643
Rüdiger, H., 367
Rudin, D. O., 250
Rudinsky, J. A., 544
Rudland, P. S., 415, 419, 420, 1046, 1057
Rüegg, J. C., 249
Ruet, A., 726, 802, 804
Rultven, C. R. J., 580
Rumberg, B., 134, 203, 211, 215
Rumboer, C. R. H., 581
Rumen, N. M., 682
Runcie, J., 578
Rundles, R. W., 818
Rupley, J. A., 1013-1044; 326, 1014, 1016, 1020, 1021, 1022, 1028
Rupp, W. D., 920
Ruppel, H. G., 187
Ruppert, D., 366
Rurainski, H. J., 203, 208
Rusch, H. P., 281, 307
Ruschmann, E., 31
Rusconi, A., 779, 790, 791, 796
Rush, M. G., 901, 902, 906, 913, 914, 933
Rush, R. A., 482, 484, 486, 487
Rushizky, G. W., 1032, 1046
Russell, A. F., 856
Russell, D., 914
Russell, D. W., 459
Russell, E. R., 523
Russell, N. L., 1048, 1064
Russell, R. L., 1056, 1064
Russell, V., 743, 745, 746
Russev, G., 1061
Rutenburg, A. M., 385, 388
Rüterjans, H. H., 614, 616, 617
Ruthven, C. R. J., 467, 475, 491
Rutishauer, U., 979,

980, 1005
Rutman, R. J., 127, 880
Rutten, J. C. J. M., 579
Ruttenberg, G. J. C. M., 902, 903, 904, 914, 917
Ruttenberg, M. A., 454
Rutter, D., 244
Rutter, W. J., 678
Ruzicka, F. J., 123
Ruzicka, J., 578
Ryan, A., 834
Ryan, F. J., 15, 1002
Ryan, J. L., 1064
Ryan, L., 752, 753, 766
Ryan, M. P., 578
Rybová, R., 247
Rychlik, I., 429, 743, 745, 1062
Ryder, E., 663
Rydon, H. N., 613
Rylander, E., 145, 147
Ryman, I. R., 914, 924
Rymo, L., 1060
Ryter, A., 870, 883, 925, 928, 931
Rytka, J., 949

S

Sabadie-Pialoux, N., 132
Sabatini, D. D., 378, 379
Sabol, S. L., 413, 779
Saccone, C., 798
Sachs, L., 49
Sachsenmeier, W., 249
Sacktor, B., 351
Sadgopal, A., 281, 296, 297, 303, 1045, 1056
Sadler, P. W., 379
Sadoff, H. L., 405
Sadowski, P. D., 875, 877, 885, 886, 887, 927
Saffile, P. A., 1047
Sage, H. J., 483
Sager, R., 187, 1002
Saggerson, E. D., 555
Sahashi, Y., 514
Sahib, M. K., 553, 753, 761
Said, A. K., 558
Saidel, L. J., 15
Saifer, A., 75, 586
Saito, T., 57, 65, 384 390, 612
Saito, Y., 453
Sajdel, E. M., 801
Sajgo, M., 684
Sakabe, K., 885
Sakakibara, Y., 829, 838, 841
Sakamoto, Y., 454, 455
Sakharova, N. K., 1058
Sakore, T. D., 779, 786
Salama, F. M., 356
Salas, M., 366, 411, 413, 414, 716, 757
Salas, M. L., 366, 754, 756, 757, 758, 765
Salganicoff, L., 636
Salivar, W. O., 883, 926
Salk, J., 638
Sallis, J. D., 518
Salmon, W. D., 815
Salser, W., 440, 1057
Saltman, P., 518
Saltzgaber, J., 135
Saludjian, P., 1029, 1031
Salzman, L. A., 452, 457, 458, 888, 901, 930
Salzmann, J., 817
Sambrook, J., 716, 901, 915, 919
Sampson, H. W., 522
Samson, A. M., 89
Samson, F. E., 467, 485
Samson, F. E. Jr., 642
Samson, L., 1029, 1030
Samuelsson, B., 60, 61, 62, 67
Samuelsson, K., 60
Samuilov, V. D., 127, 136
Sanadi, D. R., 122, 131, 132, 144, 1047
Sanborn, R. C., 1080
Sand, S., 453
Sandberg, A. L., 298
Sandberg, H. E., 625
Sander, C., 189
Sander, E. G., 273
Sanders, B. G., 972, 973, 976, 979, 985
Sanderson, K. E., 909, 963
Sandford, P. A., 33, 34
Sandhoff, K., 61, 62, 72, 73
Sandler, M., 467, 475, 477, 491, 580
Sandler, R., 760
Sandman, R. P., 471
Sandoval, A., 426, 432, 1057
Sandoval, F., 129
Sandrin, E., 429, 1058
Sane, P. V., 178
Sanes, J., 294
Saneyoshi, M., 1049, 1050, 1055
San Filippo, A., 790
Sanford, B. H., 47
Sang, J. H., 1097
Sanger, F., 411, 417, 418, 756, 1048
Sani, B. P., 131, 132
Sannella, J. J., 583
San Pietro, A., 132, 136, 199, 200, 201, 202, 203, 204, 205
Sansone, W. R., 553
Santato, M., 130
Santo, R., 800
Sanwal, B. D., 665, 944
Sapora, O., 1059
Sarabhai, A. S., 435
Saracci, R., 577
Sarda, C., 164
Sarfare, P. S., 664
Sarid, S., 400, 401, 1046, 1048, 1064
Sarin, P. S., 1052, 1053
Saris, N. E. L., 117, 128, 130, 238, 239, 245
Sarkar, N. K., 779
Sarkar, S., 414
Sarma, D. S. R., 558
Sarma, R. H., 610
Sarma, V. R., 1015, 1020, 1021, 1022
Saroja, I. S., 280, 284
Sarto, G., 817
Sarvas, M., 32
Sasaki, K., 798
Sasaki, M. S., 915
Sasaki, R. M., 202
Sasaki, T., 456
Sass, H., 542, 544
Sasse, E. A., 582
Sassi, A., 72
Satake, K., 280, 284
Sato, G., 647
Sato, S., 885
Saucy, G., 1085
Sauer, K., 199
Sauerbier, W., 714
Saunders, G. F., 304
Sautière, P., 283, 295
Savard, K., 743, 745, 760
Savery, A., 273
Savini, S., 564
Savino, M., 779
Savory, J., 578
Sawyer, R., 587
Scaff, V., 1097
Scaife, J., 919, 924
Scaletti, J. V. 901, 910
Scapelli, D. G., 376, 377, 380, 381, 382
Scarfe, J., 723
Scarisbrick, R., 209
Scarpa, A., 137, 138
Scarpinato, B., 789, 790, 791
Scatturin, A., 300
Schachmann, H. K., 336, 678, 679
Schacht, J., 362
Schachtele, C. F., 884, 925
Schachter, D., 512, 513, 516, 518, 519, 520, 523, 524, 525
Schachter, H., 43, 45, 46, 1026
Schack, P., 330, 678
Schädler, M., 249
Schaechter, M., 883, 884, 923, 925
Schaefer, A., 885
Schaeffer, L. D., 352, 754, 761
Schäfer, G., 143
Schaffhausen, B., 300, 302
Schaller, H. E., 872,

928, 931
Schally, A. V., 402
Schandl, E. K., 885
Schartum, S., 522
Schatz, G., 132
Schechter, A. N., 339, 615, 1033
Schechter, E., 1029, 1031
Schechter, I., 266
Schechter, M., 588, 589
Schedl, H. P., 518, 519
Schedl, P. D., 419
Scheinberg, H., 11, 12, 21
Scheinblat, M., 611
Scheinker, V., 1052
Scheit, K. H., 1055
Schejter, A., 140, 1029, 1031, 1032
Schekman, R. W., 870, 887, 927
Schellman, J. A., 101, 612
Schemmel, R., 559
Schendel, P. F., 859, 861, 863
Schenkein, I., 45, 46, 47
Schenker, H., 518, 519
Scher, M., 35, 40
Scheraga, H. A., 319, 614, 615, 616, 617
Scherberg, N. H., 1048
Schevitz, R. W., 683, 684, 1035, 1036
Schiavone, D. J., 581
Schiff, J. A., 187, 190
Schiff, R., 392
Schiffer, M., 300, 301
Schildkraut, C., 879
Schildkraut, C. L., 863, 866, 871
Schill, W. B., 721, 723, 799
Schiller, K.-W., 243
Schillinger, W. E., 624
Schimke, R. T., 346, 366, 944
Schimmel, P. R., 95, 323, 1014
Schiphorst, J., 906
Schlabach, A. J., 274
Schlehuber, C., 297
Schleich, T., 624
Schleif, R., 717, 722, 800, 801
Schleif, R. F., 731, 732
Schlender, K. K., 353, 756
Schlesinger, M. J., 325, 646, 664
Schlesinger, S., 646, 956, 958, 959
Schlessinger, D., 404, 405, 412, 416, 754, 1047
Schleuter, H., 317
Schleyer, H., 123
Schlicker, S. A., 562
Schlimme, E., 1045, 1046, 1053, 1054, 1055, 1056, 1062, 1063
Schliselfeld, L. H., 348, 349
Schlossmann, H., 475
Schlunegger, U. P., 587
Schmerling, Z. G., 798
Schmialek, P., 1080, 1082, 1083, 1084, 1094, 1095, 1096
Schmid, D., 673
Schmid, G. H., 179, 180
Schmid, K., 716, 799
Schmidt, D. A., 713, 715, 717, 725
Schmidt, F. H., 748
Schmidt, G., 33
Schmidt, M. J., 743, 744
Schmidt, P. G., 626
Schmidt-Clausen, H. I., 367
Schmidt-Mende, P., 215
Schmit, J. C., 268, 269, 274
Schmitt, F. O., 486, 642
Schmitt, O. H., 237
Schmitt, W., 84
Schmitz, H., 791
Schnaitman, C., 477
Schnaitman, C. A., 36, 52
Schneider, A. B., 659
Schneider, D., 541, 542, 543, 544
Schneider, E. L., 542, 543
Schneider, F. H., 481, 484
Schneider, G. E., 535
Schneider, H. P. G., 743, 744, 745
Schneider, J. A., 434, 580, 593
Schneider, P. B., 72
Schneider, U., 580
Schneider, W. G., 607
Schneiderman, H. A., 1080, 1081, 1082, 1084, 1085, 1087, 1088, 1090, 1091, 1094, 1095, 1096
Schneir, M., 432
Schnepp, O., 88
Schnetger, J., 1036
Schnoes, H. K., 515
Schnös, M., 888, 889, 890, 931
Schoellmann, G., 1028
Schoen, I., 587
Schoenborn, B. P., 1021
Schoenmakers, J. G. G., 672
Schofield, P., 411, 1046, 1053, 1055, 1056
Scholes, P., 136
Scholz, R., 117, 119, 128
Schöner, B., 240, 242
Schonhofer, P. S., 746, 759, 761
Schor, S., 181
Schorsch, E. U., 62
Schrager, R. I., 615
Schramm, G., 863
Schramm, H. J., 1026
Schramm, M., 492, 743, 744
Schröder, H., 134
Schroeder, E., 92, 94
Schubert, D., 46, 47
Schubert, J., 523
Schuffman, S. S., 383
Schuldiner, S., 181, 184, 211, 213
Schulman, J. H., 509
Schulman, L. H., 1052, 1058, 1059
Schult, H., 264
Schultz, A., 68
Schultz, F. S., 593
Schultz, G., 747
Schultz, R. L., 379
Schultz, R. M., 1020
Schulz, D. W., 348, 577
Schulz, H., 1085, 1088
Schulze, I. T., 677
Schumacher, M., 511
Schuster, I., 676, 686
Schuster, J., 324
Schuster, T. M., 681, 1025
Schütt, M., 1045, 1048
Schuurmans Stekhoven, F. M. A. H., 247, 249
Schwabe, U., 748
Schwalbach, K., 147
Schwam, H., 1056
Schwartz, D., 730, 752, 765
Schwartz, E. R., 356
Schwartz, I., 747
Schwartz, J., 52
Schwartz, J. H., 421
Schwartz, M., 840
Schwarz, K., 568
Schwarz, M., 1081, 1085, 1090
Schweet, R., 423, 432
Schweiger, E., 249
Schweiger, H. G., 190, 249
Schweiger, M., 425, 440, 441, 732, 733
Schweizer, E., 1064
Schweizer, M. P., 609, 610, 611, 1049, 1053
Schwenker, R. P., 88
Schweppe, J. S., 281
Schwert, G. W., 331
Schwerz, F. A., 169
Schwimmer, S., 303
Schwyzer, R., 95, 451, 612
Scoffone, E., 1017
Scolnick, E., 429, 436, 437, 438
Scott, C. D., 586, 591
Scott, G. B., 392
Scott, J. E., 1053
Scott, J. L., 815
Scott, N. S., 190
Scott, R. McL., 574
Scott, S., 519

Scotti, P. D., 930
Scow, R. O., 759, 761
Scragg, J., 435
Scrimshaw, N. S., 820
Scrutton, M. C., 117, 623
Seamond, B., 384, 388, 390
Searcy, R. L., 581
Sebek, O. K., 460
Sedar, A. W., 384, 390
Sedat, J. W., 453
Sedvall, G. C., 485
Seegmiller, J. E., 580, 593, 811, 813, 814, 816, 817, 818, 821, 822
Seelig, F. F., 251
Seely, G. R., 161, 198
Seery, V. L., 348, 670, 674
Segal, H. L., 352, 353, 355, 366, 662, 665, 688, 761
Segre, D., 1001, 1005
Segre, M., 1001, 1005
Sehnal, F., 1081, 1082, 1084, 1089, 1090, 1091
Sehon, A. H., 260, 273
Seibt, U., 541
Seifart, K. H., 801
Seifert, W., 360, 714, 733, 734, 1060
Seiler, P., 890
Sein, K. T., 1046
Seito, T., 386, 389
Sekeris, C. E., 291, 292, 307, 801, 1096
Sekiguchi, M., 778
Sekiya, T., 423, 1056
Sekul, A. A., 536
Sela, I., 1052
Sela, M., 74, 95, 101, 638, 970
Selander, S., 578
Selenkow, H. A., 583
Seligman, A. M., 375-96; 378, 379, 380, 381, 383, 384, 385, 386, 388, 389, 390
Seligman, K. S., 1047
Selin, D., 149
Selivaneko, A. S., 89
Sel'kov, E. A., 248
Sel'kov, E. E., 251, 253
Sell, S., 970, 1001, 1005
Selle, R., 536
Sells, B. H., 1045, 1050
Selvaraj, R. J., 583
Selwyn, M. J., 130
Senft, G., 747
Seno, T., 1046, 1047, 1052, 1053, 1056, 1059, 1064
Senoh, S., 475, 478
Senshu, T., 280, 281, 282
Sensi, P., 798
Sentandreu, R., 40
Sentenac, A., 714, 721, 726, 778, 798, 801, 802, 804
Seo, S., 802
Seppälä, A. J., 245
Sepulveda, P., 433
Service, F. J., 581
Seshadri Sastry, P., 502, 507
Sethi, V. S., 712, 715, 717, 726, 727
Setlow, P., 674, 861, 865
Setlow, R. B., 870
Setondji, J., 1058
Settlemire, C. T., 140
Sevastyanov, A. P., 1054
Sevilla, C. L., 348, 349
Seward, C. R., 507, 552, 559
Seyama, Y., 59
Sgaramella, V., 875
Shaaya, E., 1083, 1096
Shack, J., 885
Shaeffer, J., 432
Shaffer, B., 949
Shafrir, E., 761
Shafritz, D. A., 423, 424
Shah, D. O., 509
Shahrik, H. A., 594
Shainoff, J. R., 270
Shaklai, N., 91, 110
Shaltiel, S., 90, 109, 349
Shands, J. W., 36
Shank, R. E., 558
Shankman, S., 398, 399
Shanta, T. R., 749
Shanthaveerappa, T. P., 383, 390
Shapira, R., 638, 639, 640, 641
Shapiro, A. L., 673, 715
Shapiro, B., 57, 71
Shapiro, B. M., 346, 358, 359, 884, 944
Shapiro, D., 66, 71, 72, 74
Shapiro, D. J., 366
Shapiro, J. T., 297
Shapiro, L., 917
Shapiro, S., 366
Shapiro, S. L., 814, 816
Shapot, V. S., 1047
Sharma, D. C., 578
Sharma, O. K., 1050
Sharman, I. M., 509
Sharon, N., 326
Sharp, C. L. E. H., 588
Sharp, M., 460, 461
Shashoua, V. E., 250, 429
Shatkin, A. J., 901
Shavit, N., 136, 215
Shaw, E., 1028
Shaw, E. R., 208
Shaw, K. N., 475
Shaw, L. M., 281, 300, 304
Shaw, R. W., 582
Shear, D., 323
Sheard, B., 618, 623
Shearer, D. A., 535, 538, 539, 543, 545
Sheetz, M., 628
Shefter, E., 1055
Shein, H. M., 492
Sheiner, L. B., 1055
Shelanski, M. L., 486, 642, 643, 644
Sheldrick, P., 728, 829
Shelly, J., 583
Shemin, D., 820
Shemyakin, M. F., 721
Shemyakin, M. M., 459, 787
Shen, L., 75
Shepherd, D. M., 471
Shepherd, G. R., 293, 294, 295
Sheppard, G. L. Jr., 814, 816
Sheppy, F., 469, 470
Sheratsky, D., 291, 293
Sheridan, W. F., 281
Sherman, F., 421, 1057
Sherman, G., 637
Sherod, D., 293, 294, 295
Sherr, C. J., 45, 46, 47
Sherrard, D. J., 582
Sherratt, D. J., 881, 907, 908
Shiao, D. D. F., 1014
Shibata, K., 175, 176, 198, 308
Shibata, S., 802
Shifrin, S., 268
Shih, J. H. C., 477
Shih, L., 593
Shih, T. Y., 297, 298, 301, 302, 304, 305
Shima, S., 565
Shimada, I., 1053, 1060
Shimazono, N., 878
Shimizu, A., 970, 972, 979, 980
Shimizu, H., 478, 746
Shimizu, N., 384, 390, 1057
Shimizu, Y., 365
Shimogami, A., 582
Shimura, K., 280, 281, 282, 288, 289, 292, 300, 304, 456
Shimuzu, M., 793
Shin, M., 200, 201
Shinitzky, M., 88
Shinoda, T., 972
Shinohara, M., 787
Shiomi, H., 281
Shipman, N., 421
Shipp, W. S., 187
Shiratori, I., 207
Shiratori, T., 503
Shirey, T., 281
Shive, W., 425, 426, 427, 959
Shmerling, D. H., 582
Shmerling, Zh. G., 729
Shmueli, U., 95
Shnitka, T. K., 375-96; 384, 390

Shnolj, S. E., 239, 249
Shoemaker, W. C., 763
Shoemaker, W. J., 563
Shonka, M. L., 349, 670
Shooter, E. M., 635-52; 644, 645, 646
Shooter, K. V., 280, 283, 299
Shore, J. D., 328, 329, 330
Shore, P. A., 471, 481, 482
Shore, V. G., 84, 100, 101
Shorenstein, R. G., 405, 716, 728
Shorey, C. D., 383, 390
Shorey, H. H., 534, 545
Shorey, R. L., 425, 426, 427
Short, E. C. J., 877
Shoshani, T., 820, 821, 822
Shotton, D. M., 683, 1028
Shovlin, V. K., 37
Shugar, S., 876, 884
Shugart, L., 1046, 1047, 1050, 1051
Shulga, M. G., 913, 922
Shull, K. H., 293
Shulman, R. G., 86, 540, 611, 615, 619, 623, 1051, 1053
Shuster, J., 1005
Shuster, R. C., 878
Siccardi, A. G., 884
Sicho, V., 552
Siddall, J. B., 1083, 1084, 1085, 1088
Siddhikol, C., 717, 800
Siddiqui, M. A. Q., 1054
Siddons, R. C., 672
Sidman, R. L., 636
Sidransky, H., 558
Siebke, J. C., 453
Siegel, R. B., 725, 728, 734
Siegel, R. W., 539
Siegelman, H. W., 198
Sieglin, U., 38
Siekevitz, P., 181, 182, 185
Siess, E., 355, 356
Sievert, C., 452, 456
Sigler, P. B., 411, 1026, 1027, 1063
Signer, E. R., 402, 840, 841, 842, 844, 849, 850, 913, 919, 922, 923
Sikyta, B., 248
Silaev, A. B., 458, 461
Silberman, H. R., 818
Silbert, D. F., 960
Siler, J., 433
Siliprandi, N., 146
Silman, H. I., 125
Silman, I. H., 260, 268, 273, 672
Silver, M., 481
Silver, R. P., 921, 922
Silver, S. D., 911
Silverstein, R. M., 536, 537, 538, 540, 544
Silverstein, S., 679
Silverstone, A. E., 730, 752
Silverton, E. W., 1026
Silvestri, L., 713
Silvestri, L. G., 798
Silvestrini, R., 790, 791
Simard-Duquesne, N., 554
Simkin, P. A., 583
Simmonds, S., 398, 400, 401, 402, 403, 404
Simmons, N., 560
Simms, E. S., 813
Simon, A., 579
Simon, E. J., 721, 778
Simon, G., 61
Simon, S. R., 1023
Simon, W., 613
Simone, P. G., 554
Simoni, R., 185
Simons, E. L., 551
Simons, K., 74
Simpkins, H., 628
Simplicio, J., 338
Simpson, D. P., 582
Simpson, M. V., 856, 867, 1055
Simpson, R. T., 300, 302, 325
Simson, P., 280, 284, 289
Sinclair, J. H., 916, 917
Singer, B., 553
Singer, J. J., 492
Singer, L., 578
Singer, R. E., 419
Singer, S. J., 628
Singer, T. P., 122, 123, 124
Singh, P. P., 578
Singhal, R. L., 743, 744, 753
Sinsheimer, R. L., 777, 861, 882, 883, 888, 890, 900, 901, 902, 903, 905, 906, 910, 925, 926, 927, 928, 929, 930, 931, 932
Sinskey, A. J., 820
Sippel, A., 716, 721, 726, 788, 799, 800, 839
Sirlin, J. L., 1047, 1064
Sirlin, S., 472
Sironi, G., 931
Sirotnak, F. M., 951, 952
Sissakian, N. M., 187
Sitgreaves, R., 253
Sivak, A., 457
Sizer, I., 402
Sizoo, G. J., 520
Sjoberg, B., 461
Sjoerdsma, A., 469, 470, 477, 485, 487, 488, 491
Sjöqvist, J., 1063
Sjöstrand, F. S., 381
Skalka, A., 829
Skeggs, L. T. Jr., 584
Skerrett, J. N. H., 782
Skidmore, I. F., 746, 759, 761
Skinner, L. G., 1052
Skipski, V. P., 58
Skiar, J., 800
Skogerson, L., 432, 433
Skogerson, L. E., 425, 426, 430
Skoog, F., 1049
Skou, J. C., 383
Skoultchi, A., 425, 426, 427, 431
Skov, K., 1031
Skulachev, V. P., 127, 136, 137, 142, 143
Skupp, S., 812
Slack, C. R., 179, 197, 367
Slack, W. V., 584
Sladkova, I. A., 300, 302
Sláma, K., 1079-1102; 1080, 1081, 1082, 1083, 1084, 1085, 1087, 1088, 1089, 1090, 1091, 1092, 1093, 1094, 1095, 1096, 1097, 1098
Slankis, T., 189
Slater, C. E., 1097
Slater, E. C., 116, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 139, 142, 143, 144, 148, 150, 686, 916, 1032
Slater, J. C., 86
Slayter, H. S., 103
Sleeman, D. H., 584
Slenecky, R. A., 1097
Slezák, J., 248
Slichter, C. P., 607
Sloan, H. R., 72
Slonimski, P. P., 917, 931
Slump, P., 558
Sluyser, M., 299
Sluyterman, L. A. AE., 270, 324
Sly, W. S., 833, 834, 837, 841, 878
Small, P. A., 1001, 1005
Smart, J. E., 279, 280, 281, 282, 288, 289, 299, 300, 302, 304, 306
Smellie, R. M. S., 815, 816, 864, 865
Smiley, I. E., 683, 1035, 1036
Smillie, L. B., 1026
Smillie, R. M., 161, 190
Smit, E. M., 903, 904
Smit, J. A., 33
Smith, A. D., 481, 484
Smith, A. E., 421, 422, 1047
Smith, A. J., 348, 674, 763

Smith, A. P., 644, 645, 646
Smith, C. A., 175, 176
Smith, C. E., 780, 781, 785
Smith, C. G., 790, 791
Smith, C. J., 1058, 1061
Smith, D., 947
Smith, D. A., 713, 715, 719, 720, 965
Smith, D. W., 872, 925, 931
Smith, D. W. E., 1046, 1051, 1064
Smith, E. E., 49
Smith, E. L., 279-314; 279, 280, 281, 282, 283, 284, 285, 288, 288, 289, 290, 291, 292, 295, 300, 301, 304, 364, 684, 685, 1031
Smith, F., 32
Smith, G. D., 668
Smith, G. N., 551
Smith, G. P., 969-1012
Smith, H. O., 930
Smith, I., 998, 1064
Smith, I. C. P., 227, 611, 1053
Smith, J. D., 436, 564, 1048, 1057
Smith, J. W., 743, 745
Smith, L., 142
Smith, L. K., 294
Smith, M., 610
Smith, M. E., 641, 642
Smith, R., 522
Smith, R. C., 815, 1051
Smith, R. E., 117, 145, 381
Smith, R. L., 399
Smith, S. M., 912
Smith, S. O., 386
Smith, T. E., 665
Smith, W. J., 481, 483
Smith, W. K., 1005
Smithee, G. A., 743, 745, 753
Smithers, M. J., 272, 1018
Smithies, O., 290, 293, 294, 295, 972, 973, 979, 990, 1003, 1006
Smolowe, A. F., 58
Smoly, J. M., 119
Smookler, H., 484, 485
Snell, E. E., 66, 67, 398, 401, 664, 665, 675
Snell, F. M., 251
Snellen-Jurgens, N. H., 299
Snodgrass, P. J., 581
Snoke, J. E., 452, 453, 456
Snoswell, A. M., 118
Snustad, D. P., 877, 879
Snyder, E. R., 349
Snyder, P. D., 63
Snyder, R. W., 883, 884, 925
Snyder, S. H., 473, 477, 479
So, A. G., 714, 718, 719, 721, 725, 732
Sobel, B. E., 743, 744
Sobel, H. J., 376, 390
Sobell, H. M., 779, 786
Sober, H. A., 300, 302, 1029, 1031
Sodd, M. A., 1048
Soderling, T. R., 350, 353, 365, 755, 756
Sodja, A., 272, 1018, 1032
Soffer, R. L., 364, 1062
Soifer, D., 743, 745, 754
Sokoloff, L., 641
Sokolovsky, M., 1031, 1032
Solari, A. J., 915
Sõll, D., 411, 675, 1045, 1046, 1047, 1049, 1056, 1057, 1058, 1059, 1060, 1062
Soll, L., 1057
Solomon, I., 622
Solomon, S., 554
Solow, E. B., 580, 591
Sols, A., 366, 756, 757
Somers, P. J., 400
Somerville, R. L., 953, 954
Sonenshein, A. L., 405, 716, 728
Sonenshein, G. E., 918
Song, C. S., 821
Song, H., 581
Sonnenberg, B. P., 304
Sonnenwirth, A. C., 574
Sonnet, P. E., 1081, 1084, 1085, 1088, 1089, 1090
Sophianopoulos, A. J., 665
Sõrbo, B., 1055
Sordahl, L. A., 122
Sorensen, L. B., 814, 816, 817, 820
Šorm, F., 455, 976, 1080, 1081, 1082, 1083, 1084, 1085, 1087, 1088, 1089, 1090, 1091, 1092, 1095, 1096, 1097, 1098
Sormova, Z., 455
Sorokin, A. S., 1053
Soto, E. F., 636
Sotos, J. F., 142
Sottocasa, G. L., 121
Sourkes, T. L., 471, 553
Sox, H. C. Jr., 47, 592
Sozinov, L. A., 253
Spadoni, M. A., 553, 561
Spahr, P. F., 419, 724
Spangler, R., 251
Spangler, R. A., 251
Sparks, A. N., 536
Spasokukotskaya, T. N., 1058
Spater, H. W., 383
Spatz, H-C., 779
Spear, P. G., 52
Spears, C. L., 431, 796, 798, 856
Spector, H., 560
Spector, S., 469, 470, 477, 485, 487, 488, 491
Spelsberg, T. C., 299, 303, 304, 305, 306
Spence, M. W., 58, 71
Spencer, B., 507, 508
Spencer, D., 187
Spencer, R. P., 554
Spero, L., 149
Sperry, R. W., 636
Speyer, J. F., 857, 863, 864
Spicer, S. S., 392
Spiegel, H. E., 480, 481
Spiegelman, S., 403, 860, 868, 905, 998
Spiegelman, W. G., 829, 841
Spielman, A., 1097
Spielvogel, A., 526
Spiker, S., 289, 297
Spink, W. W., 273
Spirin, A. S., 410
Spiro, M. J., 43
Spiro, R. G., 30, 42, 43, 44
Spitz, J., 578
Spizizen, J., 1049
Spoerl, P., 1026
Spooner, B. S., 642
Spoor, T. C., 718
Spotorno, G., 1058
Spotswood, T. McL., 627
Spray, G. H., 593
Sprey, B., 188
Sprossler, B., 268
Sprung, J., 1085, 1088
Spudich, J. A., 405
Spurr, A. R., 189
Squires, D. M., 515
Squires, R., 398, 399
Squires, R. F., 477
Sreenivasan, A., 294
Srere, P. A., 581
Sribney, M., 67
Srinivasan, P. R., 611, 915, 919, 1045, 1048, 1050, 1056
Srivastava, U. S., 1097
Staal, G. B., 1081, 1083, 1085
Stadtman, E. R., 346, 358, 359, 360, 671, 944
Staehelin, M., 716, 722, 723, 798, 799, 1046, 1048, 1049, 1051, 1063
Staehelin, T., 428, 429
Stalla-Bourdillon, B., 1085, 1088
Stâllberg-Stenhagen, S., 62
Stalmans, W., 351, 352, 353, 354, 355, 761
Stamatoyannopoulos, G., 593
Stamm, D., 536
Stanbury, S. W., 519
Stancel, G. M., 676, 757

Staneloni, R., 354, 355
Stanley, C. A., 667
Stanley, W. M., 413
Stanton, T., 972
Staples, D. H., 417, 418
Starbuck, W. C., 280, 283, 284, 304
Stark, G. R., 626, 679
Stark, R. W., 544
Starkenstein, E., 264
Starr, J. L., 1045, 1050
Starr, R. C., 539
Stasiuk, L., 1035
Staub, A. M., 30, 31
Stead, N. W., 721, 728
Steciw, B., 581
Stedman, E(dgar), 281
Stedman, E(llen), 281
Steed, P., 36
Steele, R. H., 84, 85, 86, 91, 108
Steele, T. H., 583
Steen, G. O., 60, 61, 62, 67
Steenbock, H., 521, 560, 562
Steensland, H., 135
Steers, E., 262, 263, 264, 267, 268, 411, 674
Stefanovic, V., 796, 797
Stefanovich, L. E., 1056
Steige, H., 592
Steiger, G. J., 249
Steigerwald, J. C., 70
Steim, J. M., 173
Stein, A. D., 72
Stein, E. A., 264
Stein, W., 404
Steinberg, A. G., 1005
Steinberg, D., 755, 758, 759, 761
Steinberg, I. Z., 83-114; 85, 89, 90, 95, 109
Steinberg, R., 838, 839
Steiner, A. L., 743, 745, 749
Steiner, D. F., 353, 951
Steiner, F. E., 787
Steiner, R. F., 86, 90, 94, 97, 98, 99, 100, 656, 1051, 1052
Steinert, M., 883, 918
Steinfeld, J. L., 803
Steinmann, E., 162
Steinmetz-Kayne, M., 976, 979
Steitz, J. A., 417, 418, 419, 420, 438, 439, 952
Steitz, T. A., 682, 683, 1013, 1018, 1026, 1027, 1029
Stellwagen, E., 1029, 1031
Stellwagen, R. H., 279, 280, 286, 295, 303, 304, 364, 365
Stemke, G. W., 1001, 1005
Stemmle, D. W., 474
Stempel, K. E., 122
Stengle, T. R., 625
Stent, G. S., 860, 863, 952, 1047
Stephen, W. F. Jr., 1096
Stephens, P. M., 491
Stephens, R. E., 643, 644
Stephens, R. M., 300, 302, 613
Stern, A., 612
Stern, H., 281
Stern, N., 61
Stern, R., 354, 743, 744, 1046, 1050, 1051, 1056
Sternbach, H., 721, 723, 799
Sternberger, L. A., 385, 392
Sternberger, N., 717, 719
Sternlicht, H., 611
Stetler, D. A., 180
Steuart, C. D., 863
Stevely, W. S., 293
Stevens, A., 717, 719, 721, 734, 961
Stevens, B. J., 916, 917
Stevens, C. M., 460
Stevens, R. W., 592
Stevens, S. C., 584
Stevens, W. F., 889
Steward, M. W., 1001, 1005, 1006
Stewart, J. C., 175, 176, 177
Stewart, J. W., 421, 1057
Stewart, M. J., 1051
Stewart, T. S., 40
Stewart, W. E., 613
Sticht, G., 66, 67
Stiehl, H. H., 215, 219, 221
Stiffel, C., 1005
Still, J. L., 460
Stiller, R. L., 67
Stinson, R. A., 331, 332
Stirling, J. L., 73
Stirpe, F., 346, 363, 801
Stjärne, L., 469, 471, 477, 482, 488
Stock, K., 743
Stockdale, M., 130
Stocken, L. A., 290, 293, 295, 296, 297, 365
Stocker, B. A. D., 30, 912, 932
Stockwell, P. B., 587
Stoddart, L. C., 318
Stoerk, H., 1032
Stoffel, W., 57-82; 66, 67, 68
Stoffyn, A., 62, 66, 68
Stoffyn, P., 66, 68, 69
Stohs, S. J., 517, 523
Stoll, E., 41
Stollar, B. D., 298
Stolzenbach, F. E., 200, 201
Stone, D., 472
Stone, D. B., 756, 757, 765
Stone, M., 593
Stoner, A. K., 189
Stoner, C. D., 125
Stonington, O. G., 731, 732
Stoops, J. K., 664
Storey, B. T., 128
Storm, D. R., 1019, 1029
Stowe, B. B., 1097
Stracher, A., 674
Strandjord, P. E., 588
Strätling, W., 931
Strauch, B. S., 743, 745, 763
Straus, W., 390, 391
Strausbauch, P. H., 664
Strauss, B., 878
Strauss, J. H. Jr., 51
Strauss, N., 361
Street, B. W., 130, 145
Streeter, D. G., 1050
Streeto, J. M., 743, 745
Strehler, B. L., 1047
Stretton, A. O. W., 435
Strigini, P. F., 1057
Stringner, S. Y., 1047
Strobach, D. R., 65
Strominger, J. L., 1062
Strömme, J. H., 577
Strosser, M. T., 365
Strumayer, D. H., 1026
Strycharz, G. D., 63
Stryer, L., 84, 85, 88, 87, 88, 90, 91, 95, 99, 100, 101, 102, 103, 104, 106, 149, 625, 1052, 1062
Stuart, A., 1055
Stubbe, W., 191
Stubbs, C. S. Jr., 470
Studier, F. W., 878, 879
Studier, M. H., 1049
Studzinski, G. P., 760
Stulberg, M. P., 961, 1047, 1050, 1051
Stull, J. T., 748
Stumpf, P. K., 185
Sturtevant, A. H., 998
Sturtevant, J. M., 339, 686, 1014, 1015, 1028, 1031
Stutz, E., 187, 188, 190, 918
Styliou, M. H., 582
Subak-Sharpe, J. H., 800, 813
Subba Rao, K., 503, 507, 508
Subramanian, A. R., 416
Suchý, M., 1081, 1082, 1085, 1089, 1090, 1091, 1092, 1096, 1098
Suda, T., 513, 515, 517, 523
Sudduth, H. C., 118
Sueoka, N., 856, 883, 884, 890, 905, 925, 929, 930, 1047, 1048, 1051, 1056
Suga, I., 207
Sugawara, K., 456
Sugden, W., 716

Suggs, J. E., 581
Sugimoto, K., 885, 872, 887
Sugimura, T., 365, 885
Sugino, A., 872, 885
Sugiura, M., 725, 727, 728, 733
Sugiyama, T., 1048
Sugrue, M. F., 481
Suhadolnik, R. J., 776
Suhar, A., 299
Sulebele, G., 679
Sulimovici, S., 761
Sulkowski, E., 779
Sulkowski, T. S., 471
Summers, W. C., 714, 725, 728, 734
Summerson, W. H., 560, 562
Sund, H., 333, 335, 654, 667
Sundaresan, P. R., 508
Sundberg, M., 267
Sunderman, F. W. Jr., 578, 579, 587, 591
Sundharadas, G., 1059
Sung, M., 282, 283, 285, 290, 291, 293, 294, 295, 296, 301, 365
Suntzeff, V., 647
Suramyi, N., 118
Sure, B., 560
Surovaya, A., 1052
Surzycki, S. J., 798
Susheela, T. P., 583
Sussman, A. J., 397-408; 399, 400, 401, 402, 403, 404, 405
Sussman, M., 764
Sussman, R., 833, 845
Sutcliffe, L. H., 607, 609
Sutherland, B. M., 104
Sutherland, E. W., 348, 349, 354, 357, 467, 484, 491, 492, 580, 741, 742, 743, 744, 745, 746, 747, 748, 750, 751, 754, 755, 756, 758, 760, 763, 766
Sutherland, I. W., 33, 34
Sutherland, J. C., 104
Sutin, N., 1032
Sutton, D. C., 578
Suyama, Y., 918
Suzuki, C., 63, 64, 74
Suzuki, H., 795
Suzuki, I., 669, 670
Suzuki, K., 58, 62, 71, 280
Suzuki, T., 402, 453, 454, 455, 514
Svenneby, G., 664
Svennerholm, L., 62
Svensson, I., 1050, 1059
Svensson, S., 60
Sveshnikova, E. B., 88
Swallow, R. A., 392
Swanljung, P., 117
Swann, D., 132
Sweeley, C. C., 35, 40, 58, 59, 60, 61, 62, 63, 66, 67, 69, 73, 1081, 1082, 1085, 1088, 1094
Sweeney, C. M., 791
Sweeny, E. W., 366
Sweers, H. E., 217
Sweetman, L., 617
Swen, H. M., 266
Swenerton, H., 551
Swift, H., 187, 923
Swope, A. E., 392
Sykes, B. D., 626, 627
Sylvén, B., 403
Symes, A. L., 553
Sypherd, P. S., 1047
Syrret, P. J., 365
Szarkowski, J. W., 164
Szego, C. M., 743, 745
Szenberg, A., 970
Szent-Györgyi, A., 84, 85, 86, 91, 108
Szentirmai, A., 956, 958
Szentirmai, M., 956, 958
Szer, W., 419, 1056
Szewczuk, A., 400
Szilard, L., 979
Szinai, N., 574
Szinai, S. S., 574
Szybalski, W., 728, 733, 782, 788, 790, 793, 794, 796, 829, 826, 841, 850, 889
Szymanski, H. A., 586
Szymkowiak, A., 1046, 1047

T

Tabak, H. F., 729
Tabor, C. W., 675
Tabor, H., 675
Tagawa, K., 199, 200, 202
Tager, J. M., 135, 136, 139, 144, 147, 148, 916
Tagiang, R., 1059
Tai, A., 539
Takagi, J., 876
Takagi, N., 970
Takagi, Y., 859, 878
Takahashi, A., 614
Takahashi, K., 308
Takahashi, M., 266, 514, 970
Takahashi, M. T., 318
Takahashi, T., 291
Takahashi, Y., 1059
Takamiya, A., 198, 207, 208, 209, 210, 218
Takanami, M., 412, 417, 436, 725, 727, 728, 733
Takano, T., 1029, 1030
Takeda, M., 364, 402, 404, 417, 611
Takeda, Y., 352, 800, 1058
Takeishi, K., 421, 423, 1046, 1049, 1056
Takemori, A. E., 117
Takemori, S., 1030, 1031
Takemura, S., 1046, 1047, 1048, 1056, 1059
Taketomi, T., 62, 74
Takeuchi, T., 791
Takita, T., 795
Talamo, B., 35
Talbot, F., 582
Talibi, G. G., 384, 390
Talley, A. J., 584
Talmage, D. W., 970, 979, 985, 993, 1004
Tamai, Y., 62
Tamaki, M., 1060
Tamaoki, T., 416
Tamburro, A. M., 300
Tamir, H., 677
Tamm, I., 51
Tammes, A. R., 577
Tan, C., 581
Tanaka, A., 672
Tanaka, K., 1060
Tanaka, M., 885
Tanaka, N., 414, 430, 431, 791, 792, 795
Tanaka, Y., 513, 515, 516, 517, 523
Tanck, W., 1050
Tanford, C., 655, 673, 674
Tanimoto, O., 89
Tanino, S., 763
Taniuchi, H., 265, 270, 272, 1018, 1032, 1033, 1034, 1035
Tankersley, S., 306
Tannenbaum, S. R., 562, 820
Tanner, M. J. A., 1056
Tanner, W., 40
Tao, M., 743, 749, 754, 758, 765
Tao, P., 426, 427, 430
Tao, S. H., 563
Tao, T., 1052
Tappel, A. L., 71
Tardy, J., 647, 648
Tarver, H., 554, 555
Tate, S. S., 664
Tatsuno, T., 803
Tatum, E. L., 453, 454, 777
Taunton, O. D., 743, 745
Tavaststjerna, M. G., 636, 638
Tavenier, P., 578
Tavormina, P. A., 743, 744
Tawada, K., 659
Taxi, J., 480
Tay, B. S., 816
Taylor, A., 743, 745
Taylor, A. C., 486
Taylor, A. L., 723, 963
Taylor, A. N., 512, 518, 519, 522, 523, 524, 525
Taylor, C. W., 280, 283, 284

Taylor, E. K., 1048
Taylor, E. W., 318, 338, 339, 486, 642, 643, 658
Taylor, J. H., 885, 915
Taylor, J. M., 645, 646
Taylor, J. S., 234
Taylor, K., 829
Taylor, M. W., 1047, 1048
Taylor, R. J. Jr., 469, 470
Taylor, R. W., 339
Taylor, S. G., 787
Taysum, D. H., 84
Teale, F. W. J., 85, 86, 89, 91, 92, 96, 97, 98, 99, 102, 104, 106
Teather, C., 49, 75
Tecce, G., 798, 1059
Tedeschi, H., 142
Teichberg, V. I., 326
Teipel, J., 686
Teitelbaum, A., 558
Teitelbaum, D., 638
Telfer, M. A., 593
Teller, D. C., 280, 348, 665, 670, 674
Téllez-Iñón, M. T., 348, 352
Temin, H. M., 867, 868
Ten Bosch, J. J., 91, 93, 94
Tendler, M. D., 796
Tenenbaum, D., 637
Tenenhouse, A., 764, 765
Tener, G. M., 1046
Teng, C.-S., 304
Teorell, T., 238
Tepperman, H. M., 563
Tepperman, J., 563
Terawaki, A., 794
Terenzi, H., 352
Terepka, A. R., 521
Terranova, T., 117
Terry, R. D., 636, 637, 644
Terry, W. D., 980, 1005
ter Welle, H. F., 130, 133
Tessman, E. S., 882, 928
Tettamanti, G., 72
Tewari, K. K., 187, 188, 190, 918
Tews, J. K., 764
Thach, R. E., 413, 414, 416
Thelin, H., 461
Theologides, A., 790
Theorell, H., 327, 328, 329, 1031, 1032
Theriot, L., 844
Thiebe, R., 1056, 1059, 1060
Thiele, H. V., 1095
Thiéry, J., 252, 385
Thiessen, D. D., 535
Thiry, L., 800
Thoenen, H., 480, 483, 489, 490, 491
Thomas, C. A. Jr., 887, 888, 901, 902, 903, 910, 916, 927, 930
Thomas, E. W., 626
Thomas, F. L. X., 421
Thomas, J. B., 189, 198
Thomas, J. W., 512
Thomas, L., 509
Thomas, L. J. Jr., 746, 748, 749
Thomas, R., 829, 832, 840
Thompson, A. E., 189
Thompson, E. B., 263, 269, 274, 638, 639
Thompson, G. A., 512
Thompson, G. R., 513, 522
Thompson, H. L., 587
Thompson, J. N., 505, 506, 507, 562
Thompson, M., 639
Thompson, M. J., 1080, 1081, 1082, 1083, 1084, 1085, 1088, 1091, 1092, 1094, 1095
Thompson, R. L., 590
Thompson, R. P. H., 580
Thompson, T. E., 143
Thomson, R. Y., 815, 816
Thore, A., 136
Thorell, B., 403
Thornber, J. P., 175, 176, 177
Thorndike, J., 1062
Thorne, S. W., 183
Thornton, M. P., 1062
Thorpe, N. O., 1005
Thorpe, S. R., 67
Thorun, W., 636, 637
Thouvenin, M., 1085
Thuring, R. W. J., 918
Thurman, D. E., 553
Thurman, R. G., 117, 119
Tibbling, G., 582
Tiboni, O., 435
Tice, L. W., 383, 390
Tidwell, T., 292
Tiers, G. V. D., 613
Tietz, N. W., 574, 581
Tillack, T. W., 164
Tilmann, D., 478
Tilney-Bassett, R. A. E., 161, 177, 180, 181, 184, 185, 186, 189
Timasheff, S. N., 644, 656, 673
Timbury, M. C., 800
Ting, H. P., 143
Ting, R. C., 800
Tinoco, I., 1063
Tissières, A., 714, 732
Titani, K., 972
Titchener, E. B., 1050
Titsworth, E., 796
Titus, D. C., 471
Titus, E., 480, 481
Tobias, C. A., 403
Tocchini-Valentini, G. P., 431, 722, 723, 728, 799
Toczko, K., 281
Todd, C. W., 1001, 1005, 1006
Toft, D., 542
Toji, L., 856
Tokushige, M., 865
Tokuyama, K., 728, 730, 734
Tolbert, N. E., 384
Tolgay, Z., 559
Tomarelli, R. M., 560, 564, 568
Tomasi, L. G., 648
Tomasi, V., 743, 744, 745
Tomasz, M., 793
Tomchick, R., 478, 479, 480
Tomes, M. L., 189
Tominaga, K. T., 970
Tomino, A., 268
Tomino, S., 453
Tomita, J., 646
Tomizawa, J., 829, 834, 838, 841, 843, 845, 879, 887, 889, 901, 910, 913, 914, 920, 921, 922, 929, 930, 932
Tomkins, G. M., 366, 667, 668
Tompkins, R., 436, 437, 438
Tong, W., 743, 745
Tonnis, S. M., 456
Tonoue, T., 743, 745, 1047
Topaly, V. P., 143
Topper, Y. J., 294
Torack, R. M., 376, 378, 379
Tordjman, A., 1052
Tormey, J. McD., 383
Toro, G., 574
Torre, N. P., 552
Torrente, C., 580
Torres, H. N., 348, 351, 352, 353, 749, 756, 758
Torrigiani, G., 1001, 1005
Tosi, R. M., 970
Tosi, S. L., 1005, 1006
Totaro, J. A., 471
Toth, M., 1062
Touchstone, J. C., 583
Tourtelotte, M. E., 173
Townshend, M. M., 763
Toye, N. O., 400, 401, 403
Trachtman, M., 1031
Traganze, E. D., 404
Traiger, G. J., 479
Tramezzani, J., 474
Traniello, S., 366
Tranzer, J. P., 480, 483
Traub, W., 95
Traut, R. R., 425, 428
Trautmann, H., 1083, 1096
Trave, R., 538
Travers, A. A., 410, 645, 714, 715, 716, 724, 725,

728, 729, 732, 733, 734, 799
Travnicek, M., 1048
Traynham, J. G., 544
Treble, D. H., 146
Trebst, A., 203, 204, 208, 215
Treharne, K. J., 189
Treit, B., 664
Trejo, A. G., 32
Trela, J. M., 960
Tremblay, G. Y., 883, 884, 925
Trendelenburg, U., 485
Trentham, D. R., 325, 332, 333, 339, 678
Trgovcevic, Z., 863
Trifaro, J. M., 484
Trilling, D. M., 859
Trinder, P., 582
Triner, L., 743, 744, 747
Trop, M., 404
Trost, B. M., 1081, 1082, 1085, 1088, 1092, 1094
Trotter, C. D., 306, 732, 733
Trout, M. E., 509
Trown, P. W., 460, 461
Troy, F. A., 34, 35
Troy, R. J., 583
Truffa-Bachi, P., 262, 275, 675, 951
Trujillo, T. T., 713, 720
Trull, E. A., 609
Trummel, C. L., 516, 522
Truscott, B. L., 505
Tsai, C. S., 400, 401
Tsai, H. J., 1029, 1031
Tsai, S.-C., 357
Tsang, D., 754
Tschang, T. P., 247
Tschung, T., 66
Tsernoglou, D., 683
Tsetlin, V. I., 612
Tsia, S.-C., 759
Tsiapalis, C. M., 875
T'so, P. O. P., 298, 609, 610
Tsofina, L. M., 127, 136, 143
Tsong, T. Y., 1015
Tsou, C. S., 139, 140, 145
Tsou, K. C., 384, 388, 390
Tsuboi, K. K., 812
Tsuboi, M., 297, 298, 610, 1052
Tsuchikura, H., 593
Tsuchiya, D. K., 202
Tsuda, Y., 878
Tsuji, T., 65
Tsujimoto, A., 763
Tsujimoto, H. Y., 198, 209
Tsukada, K., 885
Tsukada, Y., 641
Tsuzukida, Y., 1046
Tsvetikov, A. N., 280
Tuan, D. Y. H., 300, 302
Tucker, A. N., 61
Tucker, C. L., 189
Tuena, M., 129
Tufvesson, G., 581
Tulegenowa, L. Z., 1047
Tulp, A., 139
Tumlinson, J. H., 537
Tupper, J. T., 142
Turkington, R. W., 293, 294, 1050, 1051
Turnbull, J. M., 636
Turner, A., 1019, 1020
Turner, D. A., 513
Turner, J. F., 367
Turner, M. W., 1005
Turro, N. J., 86
Turtle, J. R., 748
Tušl, J., 578
Tyler, A., 743, 901, 917
Tyler, D. D., 120, 121, 139
Typpo, J. T., 560
Tzagoloff, A., 131, 132

U

Uchida, T., 30
Udaka, S., 964
Udenfriend, S., 99, 457, 467, 469, 470, 471, 472, 474, 475, 477, 485, 487, 488, 490, 491
Udo, U. U., 820
Uebel, E. C., 1080, 1081, 1082, 1083, 1084, 1085, 1092
Ueda, K., 362, 365
Ueda, T., 1053
Uemura, I., 453
Uemura, T., 455
Ueno, H., 381, 383, 384, 386, 389, 390
Ueno, I., 803
Ueno, Y., 802, 803
Uesseler, H., 266
Ueta, N., 68
Uete, T., 582, 593
Uhlenbeck, O. C., 1056
Uhlendorf, B. W., 72, 817
Uhr, J. W., 45, 46, 47
Ukita, T., 421, 423, 1046, 1049, 1054, 1056
Ullman, R., 614
Ullmann, A., 752, 766
Ulmer, D. D., 1031
Umbarger, H. E., 346, 687, 944, 950, 955, 956, 958
Umezawa, H., 722, 723, 791, 792, 795, 796, 798, 799
Umezawa, S., 795
Underwood, E. J., 559
Ungar, F., 505
Unkeless, J., 128
Uny, G., 578
Upholt, W. B., 904, 906
Uraguchi, K., 801, 803
Urbach, W., 208
Urban, E., 519
Uretsky, N. J., 483
Uretsky, S. C., 1062
Uribe, E., 142
Urry, D. W., 613, 1031
Usui, T., 583
Utahara, R., 791
Utiger, R., 749
Utsumi, K., 130, 239, 244, 245, 247
Utter, M. F., 117, 677
Uyemura, K., 647, 648
Uziel, M., 1048, 1055
Uzu, K., 793

V

Vaage, O., 453
Vaes, G. M., 522
Vagelos, P. R., 659, 662, 663, 688
Vaidya, V. M., 1020
Vail, J., 1061
Vainio, H., 137, 149, 150
Valcourt, A. J., 477
Valentine, R. C., 350, 359
Valentini, L., 789, 790, 791
Valeri, C. R., 593
Vallee, B. L., 325, 562, 566, 679, 1013, 1018
Vallejos, R. H., 131, 132
Vamos, N., 743, 744
Van Adrichem, M., 1028
van Belle, H., 579, 821
Van Breemen, C., 138
Van Breemen, D., 138
Van Bruggen, E. F. J., 902, 903, 904, 906, 914, 916, 917
Vance, D. E., 58, 60, 62
Van Cura, L. J., 584
van Dam, K., 115-60; 120, 139, 140, 143, 144, 145
Van de Meene, J. G. C., 764
Van den Bergh, S. G., 131, 132
Van den Berghe, G., 348, 355
van de Pol, J. H., 906, 914
Vanderheiden, B. S., 823
Vanderkooi, J., 149
Van der Meer, J., 583
van de Sande, J. H., 876
Van Dreal, P. A., 581
van Duijn, P., 379
van Duuren, B. L., 90, 106
Vane, J. R., 815
Van Gelder, B. F., 127
Van Holde, K. E., 656, 665
van Hoof, F., 73
Vanhumbeeck, J., 1058, 1059, 1061
Van Kraaikamp, M., 672
van Lancker, J. L., 814

Van Lenten, E. J., 400, 401, 403
van Loghem, E., 1005
Van Peenen, H. J., 588, 589, 591
van Rapenbush, R., 675, 951, 1058
Van Reen, R., 585
van Rotterdam, J., 902, 906
van Tamelen, E. E., 461, 1085, 1088
van Winden, M., 834
van Wyk, D., 187
van Zyl, A., 89, 91, 94, 99, 100
Vapnek, D., 920
Varandani, P. T., 508
Varden, Heuvel, W. J. A., 513
Varkonyi, Z., 86
Varmus, H. E., 752, 753
Varon, S., 636, 644, 645, 646
Varshavskii, Ya. M., 1058
Vasilenko, S. K., 1048
Vaslow, F., 1014
Vassalli, P., 970
Vater, J., 220, 221
Vaughan, M., 357, 743, 745, 759
Vaughan, M. H., 186, 187, 420
Vaughn, G., 507
Vazquez, D., 428, 432, 433, 798
Veber, D. F., 1017
Veech, R. L., 118
Veeger, C., 116, 335
Veil, L. B., 333
Veldsema-Currie, R. D., 144
Velick, S. F., 85, 101, 107, 108, 331, 684, 686
Vendrely, R., 299, 300
Venetianer, P., 954
Venkatachalam, M. A., 391
Venkstern, T. V., 1048, 1054
Vennesland, B., 200, 207
Ventilla, M., 486
Verhassel, J.-P., 417
Verhulst, A. M., 1054, 1060
Vernon, C. A., 327, 338
Vernon, L. P., 161, 198, 206, 208
Verosky, M., 743, 744
Vesco, C., 420
Vesell, E. S., 366, 474, 478, 676, 684
Vestling, C. S., 675
Vice, J. L., 1005
Victor, F., 592
Victor, T. A., 779
Vidali, G., 281, 282, 285, 290, 291, 293, 295, 300
Vigdahl, R. L., 743, 744
Vigil, E. L., 390
Viglino, P., 613
Vignais, P. M., 141
Vignais, P. V., 141
Vijayvargiya, R., 743, 744, 753
Viktoria, J. K., 568
Villa, V., 435
Villar-Palasi, C., 346, 348, 350, 351, 352, 353, 354, 355, 756
Villa-Trevino, S., 1050
Villemez, C. L., 40
Vincendon, G., 647, 648
Viniegra-Gonzales, G., 251, 253
Vinogard, J., 878, 880, 900, 901, 902, 903, 904, 905, 906, 914, 917, 919, 932, 933
Vinogradov, S. N., 615, 1029, 1031
Vinson, J. W., 1097
Vinuela, E., 366, 411, 673, 715, 716, 756, 757
Vinyard, E., 568
Virden, P., 623
Visser, J. P., 1017
Vithayathil, P. J., 272, 1017
Viveros, O. H., 473, 481, 483, 484, 489, 490
Vladimirov, Yu. A., 84, 86, 99, 107
Vlitos, A. J., 180
Vogel, J. J., 578
Vogel, M., 800
Vogel, W., 487
Vogel, Z., 437, 1055
Vogler, W. R., 581
Vogt, M., 465, 466, 901, 914, 915
Vogt, M. T., 117
Vogt, V., 725
Vohra, P., 460
Voigt, B., 242, 332, 338, 686
Voigt, H.-P., 798
Vold, B. S., 1047, 1049, 1062
Vold, R. L., 608
Volicer, L., 484, 485
Volini, M., 665
Volk, B., 73
Volk, R. J., 198
Voll, M. J., 778
Voltz, R., 89
Vonderhaar, B., 271
von der Haar, F., 1045-78; 1045, 1046, 1053, 1054, 1055, 1056, 1062, 1063
von der Helm, K., 715, 716, 719, 725
von Ehrenstein, G., 1048
von Euler, U. S., 465, 466, 482, 488
von Hippel, P. H., 297, 298, 299, 624
von Hofsten, B., 404
Von Jagow, G., 118, 120, 121, 124, 346, 355
von Klitzing, L., 247
von Meyenburg, H. K., 248
von Muralt, A. L., 10
Von Saleski, R., 583
Von Stedingk, L. V., 136
von Tigerstrom, M., 1048, 1058
von Wettstein, D., 187, 189
Voytovitch, A. E., 294
Vulliemoz, Y., 743, 744, 745, 747
Vyas, G. N., 1005

W

Wachstein, M., 383, 390
Wacker, W. E. C., 581
Wada, A., 297, 1052, 1053, 1058
Wada, K., 1030, 1031
Wada, M., 683
Wade, N. G., 608, 610
Wade, R. D., 646
Wade-Jardetzky, N. G., 605-34; 610, 625, 626
Wadso, I., 1015
Waehneldt, T. V., 636, 637
Waelsch, H., 648
Wage, M. G., 275
Waggoner, A. S., 227
Wagner, E. R., 461
Wagner, H., 65
Wagner, K. G., 297
Wagner, L. P., 1054
Wagner, T. E., 308
Wahba, A. J., 413, 414, 415
Wahl, P., 656
Waibel, P. E., 569
Wainfan, E., 1050
Waites, W. M., 405
Waithe, W. I., 593
Waits, H. P., 1052, 1053
Waitzman, M. B., 743, 744, 749
Wajda, M., 62
Wakabayashi, N., 1081, 1084, 1085, 1088, 1089, 1090
Wakaki, S., 793
Wakede, A. R., 480
Wakeman, A. J., 557, 559, 560, 562
Wakisaka, G., 787
Waksman, A., 647
Walaas, O., 815
Walborg, E. F. Jr., 47
Wald, F., 647
Wald, G., 504, 505
Waldeck, B., 470, 481, 482, 486
Waldenström, J., 1058, 1061

Waldman, A. A., 458
Waldner, H., 163
Wales, J. K., 568
Waley, S. G., 683
Walker, D. A., 197
Walker, D. G., 379
Walker, I. O., 302
Walker, J. E., 453, 458, 461
Walker, J. T., 190
Walker, M. C., 297, 307
Walker, M. S., 90
Walker, P. G., 325
Walker, R. T., 1055
Walker-Smith, J., 582
Wall, E. N., 1085, 1088
Wallace, B. J., 383, 390, 965
Wallace, H., 998
Wallach, D. F. H., 149
Wallenfels, K., 339
Waller, J. P., 191, 402, 411, 429, 1058, 1059
Walling, M. W., 518
Wallraff, H. G., 249
Wallwork, J. C., 216
Walsh, D. A., 294, 346, 350, 354, 357, 364, 365, 748, 749, 755, 758, 759
Walter, C. F., 251
Walter, G., 714, 717, 722, 733
Walter, P., 119
Walters, L. C., 1048
Walters, R. A., 303
Walton, G. M., 756
Waltz, F. G., 326
Wang, A. C., 979, 980, 1004, 1005, 1006
Wang, J. C., 878, 880, 881, 901, 902, 903, 904, 905
Wang, J. H., 130, 133, 134, 348, 349, 670
Wang, S. M., 609
Wang, T. Y., 300, 303, 304
Wanke, E., 544
Wann, E. V., 189
Waraksa, A. J., 582
Warburg, O., 84, 107
Ward, C. B., 856, 882
Ward, D.C., 782, 785, 787, 788, 789, 790, 791, 1052, 1062
Ward, M. A., 298, 457, 461
Ward, R., 419
Ward, R. J., 551, 556, 557
Ward, R. L., 625
Waring, M. J., 784, 789, 791, 903, 904
Warner, H. R., 877
Warner, J. R., 420
Warner, R. C., 663, 677, 901, 902, 906, 913, 914, 933
Warner, R. G., 551, 555, 556, 557, 559, 560, 564, 565, 568, 569
Warren, C. D., 66
Warren, F. L., 536
Warren, L., 47, 48, 49, 74
Warren, M. D., 588
Warren, S. C., 405, 460, 461
Warrington, R. C., 1046
Warter, S. L., 538, 543
Warwick, W. J., 583
Wasa, M., 582
Waskell, L., 716, 734
Wassef, M. K., 57
Wasserkrug, H. L., 381, 384, 385, 386, 388, 389, 390
Wasserman, R. H., 501-32; 512, 513, 516, 518, 519, 520, 522, 523, 524, 525
Wastila, W. B., 748
Watanabe, M., 563, 582, 795, 796
Watanabe, S., 280, 1060
Watanabe, T., 913, 919, 921
Watanabe, Y., 582
Waterfield, M. D., 974, 1004
Waters, L. C., 1047
Waterson, J., 427, 428
Watkins, J. F. II, 545
Watlington, C. O., 763
Watson, C. J., 580
Watson, H. C., 683
Watson, L. S., 471
Watson, P. A., 817
Watson, R., 901, 902, 903, 904, 905, 914, 917, 932
Watson, R. H. J., 550, 553, 559, 560, 568
Watt, G. D., 1031
Wattiaux, R., 377
Watts, R. W. E., 821
Waugh, J. S., 608, 609
Wayman, B. J., 1046
Wease, D. F., 582
Weaver, E. C., 207, 216
Webb, E. C., 377, 664
Webb, N. L., 1063
Webber, C. E., 583
Weber, C. S., 998, 1064
Weber, E., 481
Weber, E. J., 57
Weber, G., 85, 86, 88, 89, 91, 92, 96, 97, 98, 100, 102, 104, 105, 106, 107, 331
Weber, K., 402, 654, 673
Weber, K. K., 360, 733
Weber, P., 168, 174
Webster, G. R., 637
Webster, R. E., 402, 404, 411, 417, 1057
Weenink, R. O., 581
Weetall, H. H., 262
Wegdam, H. J., 124, 126, 134
Wehrli, W., 716, 722, 723, 798, 799, 1046, 1048, 1051
Wei, S. H., 353, 756
Weidekamm, E., 149
Weidemann, M. J., 141
Weidler, K., 583
Weier, T. E., 163, 166, 167, 172, 177
Weigert, M. G., 976, 997, 1055, 1057
Weigle, J. J., 843, 847
Weikard, J., 215
Weil, J., 844, 849, 919
Weil, J. H., 421, 1047, 1055
Weil, L., 1028, 1029
Weil, R., 901, 914
Weiler, E., 970
Weill, J. D., 365
Weimberg, R., 365
Weinbach, E. C., 144
Weinbaum, G., 39
Weinberg, E. D., 456
Weiner, H., 628, 1026
Weiner, I. M., 30, 31, 35
Weiner, N., 467, 487, 488, 489
Weinfield, H., 821
Weinhold, P. A., 470
Weinhouse, S., 761
Weinreb, A., 86
Weinreb, N. J., 71
Weinryb, I., 90, 97, 98, 99
Weinshilboum, R. M., 472, 474, 483, 489, 490, 491
Weinstein, D. B., 47, 74
Weinstein, I., 758
Weinstein, I. B., 1047, 1048, 1054, 1056
Weinstein, M. J., 1080, 1094
Weinstein, Y., 272, 273
Weintraub, B., 273
Weintraub, S., 874, 883, 888
Weisbecker, L., 581
Weisberg, R. A., 845, 848, 849, 919
Weisblum, B., 717, 800
Weise, M., 1046
Weise, V. K., 482, 485, 490, 491
Weisenberg, R. C., 486, 642, 643, 644
Weiss, B., 60, 65, 67, 492, 743, 744, 748, 749, 876, 901
Weiss, G. B., 1046, 1056
Weiss, H., 121, 124
Weiss, J. F., 960, 1046
Weiss, P., 485, 486
Weiss, S. B., 419, 1048, 1050
Weiss, Z., 470

Weissbach, A., 32, 274, 878, 888, 901, 930
Weissbach, H., 411, 414, 420, 425, 426, 427, 428, 431, 452, 457, 458, 461, 470, 471, 475, 477, 492
Weissberger, A., 316
Weisslogel, P. O., 1055
Weissmann, B., 812, 820
Weissmann, C., 417, 731
Weissmann, G., 509
Welch, A. D., 471, 481
Weller, C. A., 1058
Weller, J., 492
Weller, M., 512, 758
Welling, W., 141
Wellington, W. G., 1095
Wells, C., 1050
Wells, H., 763
Wells, J. A., 477
Wells, R., 187, 188, 190
Wells, R. D., 780, 781, 784, 787, 859, 861, 863
Wenger, J., 582
Wenke, M., 491
Wenner, C. E., 145
Werenne, J., 1052, 1054, 1058, 1060, 1061
Wergedal, J. E., 521
Werle, E., 264
Werner, K. R., 581
Werner, R., 930
Wert, E. B., 577
Wertheimer, H. E., 761
Wertz, J. E., 621, 624
Wessells, N. K., 642
Wessels, J. S. C., 208, 210
Wesson, L. G., 559, 560, 562
West, J., 384
Westall, F. C., 640
Westermann, B., 346, 355
Westermann, E., 471, 743
Westermann, J., 1083, 1096
Westhead, E. W., 361
Westheimer, F., 678
Westley, J., 665
Westmoreland, B. C., 850
Weston, P. D., 508
Westphal, H., 729, 915, 919
Westphal, O., 30, 31, 33, 39
Westwick, W. J., 821
Weswig, P. H., 559
Wetlaufer, D. B., 85
Wetmur, J. G., 901, 910
Wettstein, F. O., 1047
Whalley, J. M., 888, 890, 930
Whanger, P. D., 658, 665
Wharton, D. R. A., 542, 544
Whatley, F. R., 182
Wheat, R., 30, 31
Wheeler, J. W., 534, 536
Whelan, J. B., 559, 561
Wherrett, J. R., 58
Whitaker, D. R., 404
Whitaker, J. F., 580
Whitby, L. G., 480, 481, 484
White, A. A., 750
White, D. C., 61
White, D. F., 1097
White, E. L., 366
White, H. L., 791, 792, 794, 795, 796
White, J. C., 573-604
White, J. R., 791, 792, 794, 795, 796
White, M. N., 959
White, R. H., 504
White, R. J., 452
White, W. L., 584
Whitehead, T. P., 584
Whiteley, H. R., 658
Whitfeld, P. R., 187
Whittaker, R. H., 533
Whittaker, V. P., 636
Whittam, R., 821
Whittle, E. D., 563
Whybrow, W. A., 415
Wiame, J. M., 672, 944, 945, 950
Wiberg, J. S., 877
Wickner, R. B., 675
Wicks, W. D., 752, 753
Widdowson, G. M., 580
Widmann, F. K., 574
Wiedemhöver, W., 1050
Wiegandt, H., 59, 65
Wieland, O., 346, 355, 356, 746, 747, 748
Wieland, T., 801, 1017, 1035
Wiggert, B. O., 668
Wigglesworth, V. B., 1080, 1081, 1082, 1083, 1084, 1085, 1088, 1089, 1090, 1091, 1092, 1093, 1094, 1095, 1096
Wigle, D. T., 280, 365, 422
Wigzell, H., 262, 275
Wijdenes, J., 270
Wikard, J., 219
Wikström, M. K. F., 128, 130, 245
Wilchek, M., 89, 91, 92, 93, 94, 96, 99, 259, 260, 262, 265, 266, 267, 268, 270, 271, 272, 273, 1032, 1035
Wilcox, M., 1062
Wilcox, P. E., 1026
Wildman, S. G., 187, 188, 190, 198, 918
Wildner, G. F., 190, 367
Wiley, D. C., 683
Wilhelm, E., 1005
Wilhelm, F. X., 299, 302
Wilhelm, J. A., 281, 291
Wilhelm, J. M., 798
Wilhelm, R. C., 956
Wilkie, D., 923, 931
Wilkins, B. M., 920
Wilkins, M. H. F., 302
Wilkinson, F., 86, 104
Wilkinson, J. F., 33
Wilkinson, J. H., 581
Wilkinson, J. M., 1001, 1005
Wilkinson, R. G., 32
Wilks, A. N., 640
Willard, M., 729, 838, 839, 840
Willems, C., 743, 744
Willets, N. S., 403, 404, 405
Williams, A. M., 815
Williams, B. J., 354
Williams, C. A., 45
Williams, C. M., 1080, 1081, 1082, 1083, 1084, 1085, 1088, 1090, 1091, 1092, 1093, 1094, 1095, 1097, 1098
Williams, D. L., 582, 715, 719, 869
Williams, E. D., 477
Williams, G. R., 128, 139, 140, 316, 340, 1029, 1031
Williams, G. Z., 588, 589, 590
Williams, J. F., 800
Williams, J. H., 575, 576, 578, 579
Williams, J. O., 1060, 1061
Williams, J. P., 187
Williams, J. W., 664, 665
Williams, K., 552
Williams, L. S., 960, 1059, 1061
Williams, M. A., 550, 560, 566, 568
Williams, M. K., 816, 819, 821, 822
Williams, M. N., 612, 614, 615, 616, 617, 618
Williams, N. H., 535
Williams, P. J., 1084, 1085, 1088
Williams, R. B., 563
Williams, R. C., 914
Williams, R. H., 474, 746, 754
Williams, W. A., 951, 952
Williams, W. L., 556
Williamson, D. H., 116, 923
Williamson, J. R., 117, 118, 119, 128, 139, 145, 146, 147, 743, 744
Willis, J. H., 1095
Willmer, J. S., 521, 554
Wills, M. R., 578
Wilson, A. T., 238
Wilson, B., 743, 745
Wilson, D. B., 421, 422, 675

Wilson, D. F., 124, 126, 130, 134, 144
Wilson, D. L., 728
Wilson, E. O., 534, 535, 538, 539, 541, 545
Wilson, G. E., 461
Wilson, J. A., 1005
Wilson, J. M. G., 588
Wilson, L., 643, 644
Wilson, P. W., 513, 517, 523
Wilson, R. K., 283, 304
Wilson, S. D., 580
Wilson, S. H., 1064
Wilson, S. K., 980, 1006
Wiltholt, B., 86, 90, 96
Wilzbach, K., 512
Wimmer, E., 1046
Wincour, V., 551
Wind, E., 820, 821
Windsor, M. W., 86
Winfree, A. T., 251
Wing, C. T., 484
Wing, M., 820
Winkler, H., 481, 484
Winkler, H. H., 141
Winkler, R., 319
Winkley, M. W., 611
Winnick, R. E., 453
Winnick, T., 453, 458, 459
Winocour, E., 729
Winsten, W. A., 1046
Winston, R. A., 48
Winter, D. B., 1048
Wintermans, J. F. G. M., 174
Wintermeyer, W., 1053, 1055, 1056
Wintersberger, E., 798
Wintersberger, U., 798
Winzler, R. J., 45, 46
Winzor, D. J., 655, 660, 661, 664, 668
Wirch, E., 670
Wirth, W. A., 590
Wirtz, A., 882, 929
Wise, J. B., 118
Wise, M. F., 452
Wise, W. M., 579
Wishnia, A., 1021
Wisniewski, H., 644
Withers, R. F. J., 379
Witkin, E. M., 870
Witkop, B., 458, 474, 475, 477, 478
Witt, H. T., 203, 210, 215, 216, 219, 220, 221, 340
Witt, I., 365
Witter, R. F., 575
Wittmann, H. G., 191
Woese, C. R., 410, 778, 800, 1061
Wofsy, L., 262, 273, 275
Wohlhieter, J. A., 905, 911, 913
Wohlhueter, R., 360
Wojtczak, A. B., 118
Wolcott, R. G., 626
Wolf, B., 673
Wolf, D., 360
Wolf, D. P., 348, 349
Wolf, G., 504, 508, 511
Wolfe, B., 914
Wolfe, D. E., 466, 480, 482
Wolfe, L. S., 71
Wolfe, R. G., 679
Wolfe, R. S., 404
Wolff, F. W., 568
Wolff, H., 38, 39
Wolfgram, F., 636, 637, 641
Wolfram, G., 582
Wolfram, H., 582
Wolfson, J., 888, 889, 929, 930
Wolken, J. J., 169
Wollman, E. L., 828, 838, 900, 909, 910, 919, 920
Wolstenholme, D. R., 187, 890, 902, 903, 904, 915, 917, 918, 930
Wolstenholme, G. E. W., 654
Wolthers, B. G., 266, 324
Wonacott, A. J., 683, 684, 1035, 1036
Wong, J., 209, 211
Wong, K. P., 581
Wong, P. C. L., 813, 817, 822, 823
Wong, R. G., 525
Wong, T. W., 1050
Woo, K. C., 180
Wood, D. L., 540, 544
Wood, H. G., 663
Wood, J. L., 1058
Wood, O. L., 579
Woodcock, C. L. F., 188, 918
Woodcock, N. A., 764
Woodfin, B. M., 667
Woodrow, D. A., 577
Woods, H. N., 1028
Woods, W. D., 743, 744, 749
Woodward, R. B., 794
Woolfolk, C. A., 358
Woolley, D. W., 401, 749
Wootton, I. D. P., 584
Wootton, J., 1024, 1025
Worcel, A., 888
Worsfold, M., 593
Worth, P. W., 580
Wosilait, W. D., 348, 349, 755
Wostmann, B. S., 553
Wrathall, D. P., 1015
Wray, V. P., 47
Wrigglesworth, J. M., 149, 239, 240, 244, 245
Wright, A., 30, 35
Wright, B. J., 120
Wright, H. T., 683, 1026, 1027, 1028, 1029
Wright, L. D., 273
Wright, M., 873, 874, 878, 920
Wright, R. H., 542, 543
Wright, R. K., 592
Wu, A. M., 729, 838, 839, 840
Wu, C. W., 338, 718, 719, 728
Wu, H. C., 49
Wu, M. C., 32
Wu, R., 861, 901, 910
Wu, T. T., 1063
Wulff, K., 346, 358
Wulkowski, E., 1032, 1035
Wunch, T., 676, 684
Wurster, B., 339
Wurtman, R. J., 474, 477, 489, 492, 563
Wurzburger, R. J., 469
Wüster, K.-H., 242
Wüthrich, K., 615, 619, 1029, 1031
Wyckoff, H. W., 620, 1017
Wyluda, B. J., 619, 623
Wyman, J., 125, 129, 339, 660, 662, 681, 685, 1015, 1023, 1025
Wyngaarden, J. B., 467, 814, 815, 816, 818, 819, 822
Wyss, O., 33

X

Xuong, Ng. H., 683, 1026, 1027, 1028, 1029

Y

Yabuki, H., 281
Yagi, K., 666
Yagi, Y., 970
Yagishita, K., 791
Yamada, K. M., 642
Yamada, M., 453
Yamada, T., 553
Yamada, Y., 1049
Yamagishi, H., 901, 910
Yamaguchi, H., 792, 795
Yamakawa, T., 59, 62, 63, 68, 74
Yamaki, H., 791, 795
Yamamoto, A., 58
Yamamoto, H. Y., 206
Yamamoto, K. R., 1055
Yamamoto, R. T., 1092
Yamamoto, Y., 1058
Yamamura, H., 364
Yamanaka, M., 859, 878
Yamane, T., 611, 619, 623, 1052, 1053, 1056
Yamanoi, T., 453
Yamaoka, K., 779
Yamashita, S., 125, 126, 878
Yamazaki, H., 722, 723,

798, 799
Yamazaki, I., 239
Yamazaki, R. K., 384
Yamoulis, N. D., 763
Yan, Y., 417, 436
Yang, H., 64, 65
Yang, M. G., 559, 561
Yang, S., 798
Yang, S. S., 132, 800, 1047
Yang, S. T., 757
Yang, W. K., 1047, 1048
Yaniv, M., 1048, 1051, 1055, 1058, 1060, 1063
Yankeelov, J. A. Jr., 308
Yannone, M. E., 583
Yano, M., 787, 1055
Yanofsky, C., 645, 723, 807, 919, 947, 948, 953, 954, 956, 958, 959, 961, 965, 1058
Yanofsky, S., 1055
Yanofsky, S. A., 1055
Yarbo, J. W., 787, 790
Yarmolinsky, M. B., 422, 834, 844, 845, 919, 932
Yarus, M., 712, 926, 1045, 1060, 1061
Yasunobu, K. T., 477
Yates, D. W., 317, 340
Yavin, E., 71
Yegian, C. D., 1047
Yeh, J., 359
Yen, L., 593
Yeng, D., 753
Yguerabide, J., 88
Yinon, U., 540
Yip, A. T., 668
Yip, M. C. M., 71
Yocum, C. F., 204, 205
Yohe, M., 562
Yohlke, J. R., 105
Yokota, K., 239
Yokota, M., 89
Yokota, T., 764
Yokotsuka, K., 280, 281, 282, 288, 289, 292
Yon, J., 1028
Yoneda, M., 864, 868
Yonemoto, R. H., 814
Yonemoto, T., 507, 510
Yonetani, T., 233, 317, 1032
Yong, F. C., 127
Yonkovich, S. J., 976, 997
Yontz, F. D., 566
Yoshida, A., 593
Yoshida, H., 484
Yoshida, M., 282, 300, 304, 1049, 1054
Yoshida, T., 458, 461, 553
Yoshikami, D., 1052, 1055
Yoshikawa, H., 888, 909, 927, 928, 929, 930
Yoshimura, T., 1085
Yoshioka, T., 244, 245
Yosizawa, Z., 63, 64, 74
Yot, P., 1055, 1056
Yotsuyanagi, Y., 917
Youdim, M. B. H., 477, 553
Young, A. C., 378, 380, 381
Young, D. S., 574, 569, 592
Young, E. T. II, 888, 901, 902, 903, 910
Young, F. E., 883, 884, 925
Young, G. O., 1001, 1005
Young, J. D., 411, 1062
Young, L. B., 91, 104
Young, O. M., 59
Young, P. L., 760, 761
Young, V. R., 820
Young, W. J., 817
Younger, L., 353
Yount, W. J., 1005
Yphantis, D. A., 655
Yu, C.-T., 1047
Yu, N.-T., 13
Yu, R. K., 61
Yu, Y.-Y., 392
Yuan, C., 1080, 1084, 1091
Yuan, D., 714, 723, 724
Yuasa, R., 31
Yudelevich, A., 875, 877, 885, 886, 887
Yudkin, J., 550, 553, 554, 559, 560, 568
Yue, R. H., 664
Yukioka, M., 453, 458, 459
Yung, J., 626
Yunghans, W. N., 383, 390
Yunis, A. A., 349, 354
Yunis, J. J., 281
Yura, T., 722, 723, 798, 800, 956, 958, 962, 1062
Yurewicz, E. C., 34
Yurina, N. P., 191
Yurowitzki, Y. G., 757

Z

Zabin, I., 402, 1096
Zachau, H. G., 1045, 1048, 1049, 1051, 1054, 1055, 1056, 1059, 1060
Zachman, R. D., 510
Zadrazil, S., 455, 1048, 1057
Zagury, D., 46, 47
Zahn, A., 1096
Zähner, H., 959
Zaidenzaig, Y., 349
Zaitseva, G. N., 1047
Zakay-Rones, A., 800
Zakharyan, R. A., 1054
Zalik, S., 192
Zalkin, H., 268, 269, 274, 947
Zaltzman-Nirenberg, P., 470, 488
Zambotti, V., 72
Zamecnik, P. C., 1055, 1061
Zamir, A., 437, 1055, 1057
Zand, R., 637
Zandberg, J., 906, 914
Zanetti, P., 552
Zanghi, M. A., 144
Zanini, A., 645, 646
Zaoral, M., 1081, 1082, 1087, 1091
Zarkowsky, H., 675
Zarlengo, M. H., 955
Zasloff, M., 415
Zaugg, W. S., 126
Zbarsky, I. B., 788
Zdarek, J., 1094, 1095, 1097
Zebe, E., 118
Zechel, K., 713, 714, 715, 717
Zeffren, E., 627
Zeikus, J. G., 1047
Zeitlen-Beck, R., 820, 821, 822
Zelen, M., 589
Zeleznick, L. D., 791
Zeller, E. A., 477
Zelmanzon, Y. S., 787
Zemlicka, J., 429
Zender, R., 580
Zeppezauer, M., 625
Zerner, B., 664
Zeszotek, E., 719, 721, 728
Zetterström, R., 523
Zhabotinskii, A. M., 239, 249, 250, 251
Zheltova, A. O., 458, 461
Zhelyaskov, D. K., 470
Zhilyaeva, T. I., 1052
Zichichi, M. L., 843
Ziegler, H., 367
Ziegler, I., 367
Zieher, L. M., 482
Zieve, F. J., 431
Zieve, P. D., 743, 744, 745
Zieve, S. T., 431
Ziff, E. B., 1055
Ziffer, H., 513, 779
Zigmond, M. J., 474
Zillig, W., 713, 714, 715, 717, 720, 721, 722, 726, 727, 732, 733, 799, 1060
Zimmer, G., 132
Zimmer, T. L., 453,

454, 461
Zimmerman, B. K., 861
Zimmerman, S. B., 875
Zimmerman, T. P., 813, 1052
Zinder, N. D., 411, 800, 1057
Zinn, J. G., 237
Zipser, D., 404, 951
Zissler, J., 844, 919
Zofcsik, W., 65
Zöllner, N., 582
Zondag, H. A., 583
Zor, U., 743, 744, 756
Zorzut, C. M., 60
Zottu, S., 814
Zscheile, F. P., 189
Zubatov, A. S., 1047
Zubay, G., 304, 440, 730, 752, 1056
Zucker, M., 366
Zucker, S., 576, 581
Zuckerman, J. E., 647
Zull, J. E., 523
Zullo, D. M., 1005
Zumft, W. G., 365
Zurflüh, R., 1085, 1088
Zutra, L. E., 1046, 1056
Zweig, G., 203
Zwick, M. M., 87
Zwilling, E., 1035

SUBJECT INDEX

A

Acetoacetate analysis, 580
Acetoacetate decarboxylase
  catalytic sites of, 678
Acetylation
  of histones, 285, 289-92
Acetylcholinesterase
  affinity chromatography of, 268
  binding sites of, 626
  localization of, 383, 384, 389, 390
  nuclear magnetic resonance of, 626
  transport of, 486
Acetyl coenzyme A carboxylase
  association of, 659, 662-64
  cold lability of, 677
  components of, 663
  hysteretic effects in, 688
  as multienzyme complex, 663, 671
  subunits of, 663, 677
Acetyl lysine
  in histone III, 289
  in histone IV, 281, 285
Acidic proteolipid protein, 636, 641
Acid phosphatase
  analysis of, 580, 593
  localization of, 382
  in lysosomes, 382, 390
ACTH
  adenyl cyclase stimulation by, 744, 745, 759
  and catecholamine regulation, 489
  conformation of, 96
  energy transfer in, 95, 96
  and glycogen phosphorylase, 760
  and membrane permeability, 763
  and phosphoribosylpyrophosphate synthesis, 814
  steroidogenic effect of, 754, 760, 761
Actinocin biosynthesis, 457, 461
Actinomycin
  actinocin of, 457, 461
  biosynthesis of
    cell-free, 453, 457, 458
    inhibition of, 458
    problems in, 457
    sarcosine in, 457
  degradation of, 458
DNA binding by
  capacity of, 781
  complex isolation, 779, 780
  and conformational changes, 781, 783
  and DNA synthesis, 778, 779
  guanine role in, 780-84
  and histones, 298
  model systems, 779-86
  and RNA synthesis, 777, 785
  sequence role, 785
  site of, 780-86
  and structure, 776, 777, 779-86
formation of, 658
and membrane permeability, 777, 778
and nisin synthesis, 457
poly dI binding by, 784
and polymyxin synthesis, 455
structure of, 450, 777
and vitamin D, 520
Actomyosin, 339
Adenine phosphoribosyltransferase
  hepatectomy effect, 816
  in Lesch-Nyhan syndrome, 817
  role of, 812
Adenosine kinase, 821
S-Adenosylmethionine, 362
Adenosylmethionine decarboxylase, 675
Adenyl cyclase
  activation of
    agents of, 743-45
    by catecholamines, 743, 759
    by epinephrine, 354
    in fat cells, 758, 759
    and hormonal discriminators, 759
    by hormones, 354, 743-46, 758, 759
    inhibition of, 746
    and membranes, 743-45
    and receptors, 744-46
  allosterism in, 743
  assay of, 748
  distribution of, 743, 744
  inhibition of, 746
  membrane association of, 743
  noradrenaline effect on, 492
  role of
    and activation, 743-45
    and hormone response, 743-45
    model of, 765, 766
  and secretion, 765
Adenylyltransferase
  and glutamine synthetase inactivation, 358
  properties of, 360
  purification of, 360
Adrenaline
  biosynthesis of, 468, 473
  in chromaffin granules, 482
  function of, 466
  inactivation of, 480
  metabolism of
    catechol-O-methyltransferase in, 476, 478
    inactivation, 480
    pathway of, 475, 476
    urinary product, 475
  regulation of, 489
  release of, 483
  storage of, 481, 482
  uptake of, 480-82
  visualization of, 466
Aerobacter aerogenes
  capsular polysaccharide of
    biosynthesis of, 34, 35
    structure of, 33, 34
Affinity chromatography
  of amylase, 264
  of antibodies, 273
  of asparaginase, 267
  of avidin, 265, 270
  of carboxypeptidase, 265
  carriers in
    agarose, 260-62, 264, 270, 1018
    coupling reactions, 260, 262, 1018
    glass, 262, 263
    ligand attachment, 263
    polyacrylamide, 262, 1018
  of chorismate mutase, 268
  of α-chymotrypsin, 263-66
  definition of, 259, 1018
  of 3-deoxy-D-arabinoheptulosonate-7-phosphate

synthetase, 265, 266
in enzyme purification, 262-70, 1018
of estradiol receptor protein, 271
of flavokinase, 265
of fructose 1,6-diphosphatase, 264
of β-galactosidase, 262-64, 267, 268
of glutamine synthetase, 269
of glycerol 3-phosphate dehydrogenase, 263, 266, 267
of glycogen synthetase, 264
of histidyl-tRNA, 272
of insulin, 273
of lactic dehydrogenase, 264, 265
of lymphoid cells, 275
of modified enzymes, 269, 270
of nucleic acids, 272-74
of papain, 266, 270
of pepsin, 262
in peptide purification, 271-73, 1018
of plasminogen, 271
principles of, 259, 260, 271, 272
of proteases, 266
protein-protein interactions in, 272, 273, 672
in purification, 260, 262-75
of pyrophosphatase, 264
of ribonuclease, 266
of ribonuclease S, 266, 272
of ribosomes, 274
of staphylococcal nuclease, 263, 265, 269, 270, 272
of starch synthetase, 264
of sulfhydryl proteins, 270
of thyroglobulin, 270
of thyroxine-binding globulin, 270, 271
of trypsin, 262, 264
of tyrosinase, 265
of tyrosine aminotransferase, 263, 269, 274
Agarose
in affinity chromatography coupling reactions, 260, 1018
derivatives, 260-62, 264, 270
immunoabsorbents, 273
ligand attachment, 263
organomercurial, 270
Alanine aminotransferase, 366
Alanine transaminase, 581
Alanyl-β-naphthylamidase, 641, 642
Albumin
analysis of, 580
light scattering by, 19
mercaptalbumin fraction, 19
modification of, 364
as plasma expander, 18
Alcohol dehydrogenase
catalytic sites of, 678
energy transfer in, 105
fluorescence of, 102, 328
isotope effect in, 330
mechanism of, 327-30
NAD binding by, 626, 628
NADH dissociation from, 327-29
nuclear magnetic resonance of, 626, 628
specificity of, 327, 328, 330
structure of, 684
zinc chelation in, 329
Aldehyde oxidase, 475
Aldehyde reductase, 475
Aldolase
analysis of, 581
hybrids of, 678
mechanism of, 339, 340
in multienzyme complex, 672
protein interactions of, 672
reassociation of, 676, 678
Alkaline phosphatase
analysis of, 581, 593
catalytic sites of, 678
conformation of, 325
inhibition of, 325
localization of, 382, 390
mechanisms of, 324, 325
polymerization of, 664
vitamin D effect, 521, 525, 526
Allopurinol
in gout, 818
and Lesch-Nyhan syndrome, 817, 818
and purine excretion, 818
Allosterism
in adenyl cyclase, 743
in aspartate transcarbamylase, 674, 675, 679
in chitin synthetase, 41
in citrate synthetase, 128
and enzyme self-association, 660
in glutamine synthetase, 359
in glyceraldehyde phosphate dehydrogenase, 242
in glycogen phosphorylase, 349, 350
and glycogen synthetase, 354
in glycolysis, 242
in isocitrate dehydrogenase, 128
in mitochondria, 125, 129, 130
in oxidative phosphorylation, 129, 130
in phosphofructokinase, 242, 243, 756, 757
in phosphorylase kinase, 755
in pyruvate decarboxylase, 242
in pyruvate kinase, 242
and subunit interactions
in hybrid enzymes, 679
models of, 685-87
and regulation, 685
see also Protein-protein interactions, Regulation
α-Amantin, 801
D-Amino acid oxidase, 664, 666
Amino acids
analysis of, 15, 580
molal volume of, 13
Raman spectra of, 12, 13
Aminoacyltransferase II
GTPase activity of, 361
inactivation of
by diphtheria toxin, 361
mechanism of, 346, 361, 362
NAD role, 361
reversibility of, 346, 361
Aminoacyl-tRNA protein transferases, 364
Aminoacyl-tRNA synthetases
ATP specificity of, 1058
characterization of, 1057, 1058
complex formation with, 1060, 1061
control of, 963
dissociation of, 1058
inhibitors of, 1060
mapping of, 963
metal requirement, 1058
and regulation, 963, 1061, 1062
in repression
analog studies, 959
and pathway-specific enzymes, 956-58
as repressors, 958-62
role of, 958, 959
specificity of, 1058-61
steps in reaction, 1061
stimulation of, 754
vitamin A effect, 511
see also Protein synthesis, specific enzymes

Aminohexose pyrimidine nucleosides, 703, 705-7
Aminopeptidase localization, 388
Aminopterin, 420, 421
Ammonium ion
  analysis of, 578
  transport of, 135
AMP
  analysis of, 580
  cyclic, see Cyclic AMP
  formation of, 821
  and glutamine synthetase, 358
  and glycogen synthetase phosphatase, 353
  phosphoribosylpyrophosphate amidotransferase inhibition of, 818, 819
  and phosphorylase, 348
Amphetamine analysis, 580
Amylase
  analysis of, 581
  purification of, 264
  secretion of, 492
Anisomycin, 705-8
Anthracyclines
  DNA binding by, 789-91
  nature of, 789
  RNA binding by, 791
Anthramycin
  DNA binding by
    covalent, 797
    sites of, 796, 797
    strength of, 796, 797
  and DNA polymerase, 856
  structure of, 796, 797
Anthranilate synthetase
  as enzyme complex, 947, 948, 950
  reactions of, 950
  regulatory role of
    and repression, 953
    and translation control, 953, 954
  in tryptophan metabolism, 947, 948
Anthranilate synthetase-phosphoribosyltransferase
  as enzyme complex, 947, 948, 950
  reactions of, 947, 950
  in tryptophan metabolism, 947, 948
Antibiotics
  actinomycin, 450, 453, 455, 457, 458, 776-86
  α-amantin, 801
  anthracyclines, 789-91
  anthramycin, 796-98, 856
  antimycin, 124-26, 129, 134, 150
  aurin tricarboxylic acid, 702, 703, 705-7
  aurovertin, 129, 130
  bacitracin, 450, 452, 453, 456
  biosynthesis of
    actinomycin, 453, 457, 458
    D-amino acids of, 452
    bacitracin, 456
    cephalosporin, 460, 461
    and chloramphenicol, 452
    cyclization, 454
    depsipeptides, 459, 460
    edeine, 453, 456
    gramicidin S, 453, 454
    inhibition of, 454
    initiation of, 454
    malformin, 458, 459
    nisin, 456, 457
    penicillin, 460, 461
    polymixin, 455
    problems of, 451-53
    and protein synthesis, 451-53, 455
    study of, 452, 453
    substitutions in, 450-52
    tyrocidines, 453-55
  bleomycin, 795, 796
  bongkrekic acid, 141
  cephalosporin, 460, 461
  chloramphenicol, 36, 452, 455-57, 703, 705-8
  chromomycin A_3, 787-89
  depsipeptides, 451, 459, 460
  DNA binding by
    actinomycin, 776-86
    anthracyclines, 789-91
    anthramycin, 796-98
    bleomycin, 795
    chromomycin, 787-89
    daunomycin, 789, 790
    hedamycin, 791, 792
    kanchanomycin, 803, 804
    luteoskyrin, 802, 803
    mithramycin, 787, 788
    nogalamycin, 790, 791
    olivomycin, 787, 788
    phleomycin, 795
    rubiflavin, 791, 792
  edeine, 453, 456, 703-7
  fusidic acid, 414, 430, 701, 703
  gramicidin, 450, 453, 454
  hedamycin, 791-93
  juvenile hormone as, 1098
  kanchanomycin, 803-5
  luteoskyrin, 801-3
  malformin, 458, 459
  mechanism of action and multiple effects, 776
    as nucleic acid analogs, 776
    on nucleic acids, 776
  mithramycin, 787-89
  mitomycin, 793, 794, 873, 874
  monensin A, 140
  nigericin, 135, 136
  nisin, 450, 452, 456, 457
  oligomycin, 120, 129, 130, 136, 146, 147, 149
  olivomycin, 787-89
  and oxidative phosphorylation
    antimycin, 125, 126, 129
    aurovertin, 129, 130
    oligomycin, 129, 130, 146, 147
    piericidin A, 123, 124
  pactamycin, 1050
  penicillin, 451, 460, 461
  and peptidases, 451
  peptide
    actinomycin, 450, 453, 457, 458
    amino acids of, 402, 451, 452
    association of, 450
    bacitracin, 450, 452, 453, 456
    biosynthesis of, 451-61
    cephalosporin, 460, 461
    constituents of, 451
    cyclic, 451
    depsipeptides, 459, 460
    edeine, 453, 456
    gramicidin S, 453, 454
    homogeneity of, 450, 451
    malformin, 458, 459
    metal binding of, 451
    nisin, 450, 456, 457
    penicillin, 451, 460, 461
    polymyxin, 455
    size of, 450
    stability of, 402, 451
    tyrocidines, 450, 453-55
  phleomycin, 795, 796, 856
  piericidin A, 122-24
  pleiotropic effects of, 701
  pluramycin, 791
  polymyxin, 450, 455
  and protein synthesis
    inhibition of, 36, 414, 422, 423, 427-30, 437, 701-9
    and intracellular concentration, 701
    site of action, 701, 702
    and sparsomycin, 422, 427, 437, 703, 705-8

puromycin, 422, 423, 428-30, 455, 457, 703, 705-7, 747
resistance factors, 912
rifampicin, 716-18, 721-23, 726, 734, 798-800
rifamycin, 798-800
and RNA synthesis
and actinomycin, 777-79, 783, 784
and α-amantin, 801
and anthramycin, 797, 798
and chromomycin, 787, 788
and daunomycin, 790, 791
and hedamycin, 792, 793
and kanchanomycin, 804
and luteoskyrin, 801-3
and mithramycin, 787, 788
and mitomycin, 793
and nogalamycin, 790
and olivomycin, 787, 788
and phleomycin, 796
and pluramycin, 792
ribosomal, 778
and rifampicin, 716-18, 798-800
and rifamycins, 798-800
and streptolydigin, 800
and streptovaricin, 798
rubiflavin, 791, 792
sparsomycin, 422, 427, 437, 703, 705-8
streptogramins, 701, 703, 705-9
streptolydigin, 800, 801
streptomycin, 702, 703, 705-7
streptovaricin, 798
tetracyclines, 703-7
thiostrepton, 701, 703, 705-7, 709
and tRNA methylation, 1050
tyrocidines, 450, 453-55
valinomycin, 135, 136, 142
see also individual antibiotics
Antibodies
and antigen localization, 391, 392
energy transfer in, 101
fluorescence of, 101, 658, 659
hapten binding by, 625, 626
to histones, 298
homogeneous, 970
purification of, 273
see also Immunoglobulins
O-Antigens
analysis of, 59, 60
attachment of, 31
biosynthesis of, 30, 31, 35
heterogeneity of, 33
structure of, 30, 31
Antimycin
and cytochrome b, 134, 150
and electron transport, 124-26, 129
fluorescence of, 150
and mitochondria
binding of, 125
and electron transport, 125, 126
and oxidative phosphorylation, 129
Apohemoglobin, 101, 102
Apomyoglobin, 101, 102
Arginase
induction of, 944
and ornithine transcarbamylase
inhibition, 944
interaction of, 944, 945
as regulatory protein, 945
Arginine
biosynthesis of, 944, 945
degradation of, 944, 945
Arginine decarboxylase, 664
Arginosuccinase, 677
Aryl sulfatase, 593
Ascites tumor cells, 117
Asparaginase
affinity chromatography of, 267
analysis of, 581
Aspartate aminotransferase
fluorescence of, 109
localization of, 379
Aspartate transcarbamylase
binding sites of, 626
nuclear magnetic resonance of, 626
regulation of, 674, 675, 679, 943
subunit function in, 674, 675, 679
Aspartic β-decarboxylase, 662, 664
Aspartokinase, 360, 361
Aspartokinase-homoserine dehydrogenase
conformation of, 334
relaxation kinetics of, 334
transient kinetics of, 334
Aspergillus niger
and malformin production, 458, 459
ATP
and aminoacyl-tRNA synthetases, 1058, 1060
in bacitracin biosynthesis, 456
in catecholamine storage, 481-83
and DNA replication, 872-74
and fatty acid activation, 146
and glutamine synthetase, 358
in glycolysis, 241, 242
in gramicidin biosynthesis, 453, 454
hydrolysis of
free energy of, 127
and oxidative phosphorylation, 127
in mitochondria, 127, 128
and mitochondrial swelling, 244-46
and muscle action, 249
myosin interaction with, 338
and oxidative phosphorylation
aurovertin effect, 129
energy conservation in, 127, 128
and phosphoadenylsulfate formation, 508
in polymyxin biosynthesis, 455
and pyruvate dehydrogenase, 355
in red cells, 820
synthesis of, see Oxidative phosphorylation, Photophosphorylation, Photosynthesis
ATPase
assay of, 593
calcium sensitive, 525
in chloroplasts, 166
DNA dependent, 878
inhibition of, 131
localization of, 383
ATP-sulfurylase, 507, 508
Atractyloside, 141
Auramine O, 102
Aurin tricarboxylic acid
and mRNA attachment, 702
and protein synthesis, 702, 703, 705-7
Aurovertin
and oxidative phosphorylation, 129, 130
Avenaciolide, 139
Avian myelobastosis virus, 52
Avidin
affinity chromatography of, 265, 270
fluorescence of, 101
Axons
growth of, 642

microfilaments of, 642
neurofilaments of, 642
neurotubules of
and colchicine binding, 642-44
and growth, 642
GTP binding, 643, 644
protein of, 642-44
and vinblastine, 643, 644
Azathioprine, 816
Azotobacter vinelandii
RNA polymerase of, 716, 728

B

Bacillus brevis
and edeine biosynthesis, 456
and gramicidin S biosynthesis, 453
Bacillus circulans, 452
Bacillus licheniformis
and bacitracin, 452, 456
Bacillus megaterium
plasmids in, 914
Bacillus polymyxa, 452
Bacillus stearothermophilus
peptide formylase of, 417
protein synthesis in, 419
Bacillus subtilis
chromosome of
circularity of, 909
membrane attachement, 925
deoxyribonuclease of, 859
DNA polymerase of
nuclease activity of, 859
properties of, 863, 864
formylmethionine in, 402, 403
and mycobacillin, 452
peptide formylase of, 417
RNA polymerase of, 716, 728
Bacitracin
biosynthesis of
inhibition of, 456
pathways of, 453
by protoplasts, 456
requirements of, 456
as spore coat constituent, 452, 456
stability of, 402
structure of, 450
Bacteriochlorophyll, 175
Bacteriophage f2, 419
Bacteriophage λ
chloramphenicol-resistant protein in, 882
cI protein of
DNA binding by, 837, 838
and N protein, 832, 833, 840
as repressor, 831-34, 837-40
self-regulation of, 831, 832
sequential regulation, 837
thermolabile, 845
defective, 913, 914
DNA of
circular, 900, 901, 913, 914
cohesive ends of, 901, 910
integration of, 919, 920
as plasmid, 913, 914
replication of, 926, 928, 930
supercoiling of, 901, 902
transcription of, 725, 726, 729
transfer of, 920
DNA replication in, 889
endonuclease of, 878
excision-defective mutants of, 844-48
induction of, 833, 834
integration-defective mutants of, 842-44
lytic growth of
cI protein in, 831-35
negative regulation of, 830-34
N-protein role, 829, 830
positive regulation of, 829
stages of, 829
negative regulation in
cI protein role, 830, 831, 833, 834
establishment of, 832, 833
maintainence of, 830-32
proteins in, 830, 831, 834, 835
release of, 833, 834
prophage state of
establishment of, 829
and lytic growth, 836
regulation by, 835
and RNA synthesis, 831, 833, 836, 837
site-specific recombination in
excision in, 845-50
integration in, 842-45, 849, 850
int-protein role, 844, 845, 847-49
model of, 842, 843, 845
nature of, 848-50
requirements for, 846, 847, 849
xis-protein role, 844, 846, 848, 849
Bacteriophage M13, 882, 883
Bacteriophage MS2, 419
Bacteriophage φX 174
DNA of
circular, 900, 901, 906, 910
purification of, 906
replicative form of, 901, 906
DNA replication of
and chloramphenicol-insensitive protein, 882, 928
electronmicroscopy of, 930
nicking of, 927
in polA mutants, 870, 872
and rolling-circle model, 888
single stranded, 883, 929, 930
Bacteriophage PM2, 905, 910
Bacteriophage Qβ
nucleotide sequences in
at initiation sites, 417, 418
translocation of, 430
RNA polymerase of
nature of, 731
phleomycin inhibition of, 796
and ribosomal RNA synthesis, 731
Bacteriophage R17
nucleotide sequences in
initiation sites, 417, 418, 438
and secondary structure, 418
termination, 438, 439
untranslated, 418, 438, 439
Bacteriophage SP3, 859
Bacteriophage T2
DNA polymerase of, 863, 864
Bacteriophage T4
and chromosomal attachment sites, 884
denaturation factor of, 879, 880
DNA ligase of, 876
DNA polymerase of
initiation by, 865
mutants of, 857, 863
nuclease activity of, 859
properties of, 860, 863, 864, 871
DNA replication of, 930
gene 32-protein of
and DNA denaturation, 879

and DNA renaturation, 879
properties, 879
nucleases of, 877, 878
in pol A mutants, 872
and protein synthesis
control of, 419, 420
specificity of, 419, 420
of T4 lysozyme, 440
RNA polymerase of, 725, 729, 733, 734
Bacteriophage T5
DNA polymerase of, 863, 864
Bacteriophage T7
DNA of
RNA polymerase binding to, 726
transcription of, 725, 734, 785
endonuclease induced by, 878
transcription of, 785
Barium analysis, 578
Basement membranes, 43
Batrachotoxin, 743, 746
Bilirubin analysis, 580
Biotin carboxylase
as acetyl coenzyme A carboxylase component, 663
Blasticidin S
and colistin synthesis, 455
and protein synthesis, 703, 707
Bleomycin
and DNA scission, 795
and DNA synthesis, 795
nature of, 795, 796
Blood group substances, 75
Bombykol, 543
Bongkrekic acid, 141
Bottromycins, 450
Brevibacterium liquifaciens, 743

C

Calcium
absorption of
and calcium binding protein, 524, 525
control of, 519
cyclic AMP effect, 519
mechanisms of, 518, 519
and rickets, 523
saturation in, 518, 519
vitamin D effect, 517-20, 522, 523
analysis of, 578
as nutrient, 556, 560, 565, 567
transport of, 135, 137, 138, 513-19, 763, 764
Calcium binding protein
synthesis of, 516
vitamin D induced
binding sites of, 523, 524
and calcium absorption, 524, 525
localization of, 524
properties of, 523, 524
strontium effect, 525
surfactant effect, 524
Calorimetry
of enzyme reactions, 1014, 1015
Capsular polysaccharides
adhesion of, 33
biosynthesis of, 34, 35
structure of, 33, 34
Carbamyl phosphate synthetase, 644
Carbonic anhydrase
action of, 21
energy transfer in, 102, 104
nuclear magnetic resonance of, 625
and rapid reaction studies, 339
structure of, 21, 22
Carboxydismutase, 190
Carboxylesterase, 664
Carboxypeptidase
affinity chromatography of, 265
fluorescence of, 108
induced fit in, 1020
nonproductive binding by, 1022
nuclear magnetic resonance of, 623, 625
X-ray crystallography of, 682
Cardiolipin
in membranes, 123
and NADH dehydrogenase release, 123
Carnitine dehydrogenase, 248
β-Carotene, 503, 504
β-Carotene dioxygenase, 503, 504
Carotenoids
biosynthesis of, 189
in chloroplasts, 176, 206
Carzinophyllin
and DNA synthesis, 794
structure of, 794
Catabolite
gene-activating protein, 730
repression, 730, 752
Catalase
fluorescence of, 106
in peroxisomes, 390
regulation of, 366
Catecholamines
and adenyl cyclase, 743, 759
analysis of, 580
biosynthesis of
and dopa decarboxylase, 468, 470, 471
and dopamine-β-hydroxylase, 468, 471-73, 479
pathway of, 467, 468, 491
and phenylethanolamine-N-methyltransferase, 468, 473, 474
rate of, 488, 491
and tyrosine hydroxylase, 467-70, 479, 488
depletion of, 483
distribution of, 465
in enzyme activation, 492
excretion of, 475, 491
function of, 466, 467, 492
inactivation of, 480
localization of, 465, 466
metabolism of
biosynthesis, 467-75
catechol-O-methyltransferase in, 476, 478-80
enzymes of, 475, 476
inactivation, 480
monoamine oxidase in, 475-77, 479
uptake, 480, 481
urinary products, 475
nature of, 465
and protein synthesis, 754
regulation of
cyclic AMP role, 467, 491, 492
dopamine-β-hydroxylase in, 489-91
drug effect on, 489, 490
hormones in, 489, 491
mechanisms of, 487, 488, 491
sites of, 487, 488
and synthesis rates, 488
tyrosine hydroxylase role, 488-91
release of, 482-84
storage of, 481-83
transport of
demonstration of, 485, 486
in nerves, 485
rate of, 486
turnover of
measurement, 484, 485
pools of, 485
uptake of, 480, 481
visualization of, 466
Catechol-O-methyltransferase
assay of, 478, 479
inhibition of, 478
requirements, 478
substrates of, 475, 476, 478
Cathepsin D, 508

CDP-abequose, 31
Cell envelopes
capsular polysaccharides of
biosynthesis of, 34, 35
structure of, 33, 34
dynamic state of, 39
formation of, 35, 36
glycosyltransferases in, 36, 37
layers of
components of, 35-37
proteins in, 37-39
separation of, 35, 36
lipopolysaccharides of
O antigens, 30, 31
biosynthesis of, 30, 31
heterogeneity in, 33
inner core, 31-33
outer core, 30, 31
phospholipid-protein complex of, 36, 37
structure of, 30-33
mammalian
metabolism of, 47
modification of, 49
sialoglycoproteins in, 47
and virus transformation, 49-51
organization of
fractionation of, 36
layers of, 35, 36
phosphatidylethanolamine in, 36, 37
proteins in, 37-39
proteins of
linkage of, 37, 38
nature of, 38, 39
role of, 37, 38
role of, 39
viral, 51-53
Cephalosporin, 460, 461
Ceramide aminoethyl phosphonates, 61
Ceramide hexosides
analysis of
enzymatic, 59
quantitation, 58, 60
separation, 57-59, 62
degradation of, 71
nuclear magnetic resonance of, 63
structure of
bases of, 61, 62
in brain, 61
carbohydrate of, 62-65
in Fabry's disease, 62
synthesis of
biosynthesis, 67-71
chemical, 66
site of, 69
Ceramide phosphorylethanolamines, 61, 62
Cerebron, 62, 68
Cerebrosides
analysis of
separation, 60, 62
spectrophotometric, 58
biosynthesis of, 68
degradation of, 71
structures of
bases of, 61
sulfatide in, 62
Chemiluminescence, 239
Chemoreception, 542
Chitin, 40, 41
Chitin synthetase, 41
Chlamydomonas reinhardi
chlorophyll synthesis in, 189
chloroplast DNA of, 187
photosynthesis in, 180, 189, 190
thylakoid assembly in, 181, 182
Chloramphenicol
and bacitracin synthesis, 456
and colistin synthesis, 455
and nisin synthesis, 457
and peptide synthesis, 452
and polymyxin synthesis, 455
and protein synthesis
inhibition of, 437, 703, 705-8
and lipopolysaccharide excretion, 36
Chlorella ellipsoidea, 187
Chloride analysis, 578
Chlorobium thiosulfatophilum, 201, 202
Chlorophyll
area of, in membrane, 169, 170, 174, 175
position, in membrane, 174-78
protein complex with, 175-78
structural genes for, 189
synthesis of, 177, 181, 183, 189
Chlorophyll II, 219, 220
Chloroplasts
carotenoids in, 206
chlorophyll in
area of, 169, 170, 174, 175
position of, 174-78
protein complex of, 175-78
synthesis of, 177, 181, 183, 189
cofactors in, 203
cytochrome reducing substance of, 203-5
cytochromes of
cytochrome 559, 209, 212, 213
cytochrome b_6, 209-12
cytochrome *f*, 203, 208-11
function of, 210-13
localization of, 199, 210, 212
properties of, 209
DNA in
amount of, 187
base composition of, 186, 187
and chloroplast RNA, 190, 191
information in, 190-92
localization of, 188, 189
5-methylcytosine in, 187
and ribosomal proteins, 191
sequences in, 187, 188
size of, 918
electron transfer in, 162
ferredoxin-NADP oxidoreductase
binding of, 199
localization of, 201
ferredoxin reducing substance of, 204, 205
fluorescence of
and photosynthesis, 183, 184
and substance Q, 217-19
grana in
formation of, 183
nature of, 161, 162
re-formation of, 167
and salts, 168
structure of, 179
in greening, 211-13
ion transport in, 136, 137, 247
isolation of, 200
lipids of, 169
membranes of, 136, 247
partition in, 166, 167
photooxidation in
of cytochrome c, 203, 204
of cytochrome f, 203, 213
photosynthesis in
and NADP photoreduction, 180, 183
and substructure, 178-80
photosynthetic unit of, 205, 206
photosystem I of
chlorophyll in, 175, 176
development of, 181-83
localization of, 178-80

in mutants, 179, 180, 191, 192
purification of, 178
photosystem II of
chlorophyll in, 175, 176
development of, 181-83
localization of, 178-80
in mutants, 179, 180, 191
purification of, 178
plastoquinone in
concentration of, 214
role of, 214-16
quantasomes in, 163
RNA synthesis in, 798
ribosomes in, 190, 191
specification of structure of and chloroplast DNA, 186-90
and nuclear genes, 189, 190
subparticles of, 206, 210
thylakoids in
appearance of, 162-65
assembly of, 180-86
binding between, 166, 167
carotenoid in, 176
chlorophyll, area of, 169, 170, 174, 175
chlorophyll position in, 174-78
electronmicroscopy of, 161-68, 171-74
layers in, 168-71, 175
models of, 163, 165, 168, 171-74
nature of, 161, 162
particles in, 164-66, 171, 172
and photosynthesis, 178-80
specification of, 186-92
substructure in, 162-74
X-ray diffraction of, 168-74
α-tocopherolquinone in, 217
vitamin K in, 217
Chlortetracycline, 427, 703
Cholesterol
assay of, 575, 580, 591
purity of, 575
Cholinesterase analysis, 593
Chondroitin sulfate, 43
Chorismate mutase, 268
Chromatin, 517
Chromium analysis, 578
Chromogranins, 481-84
Chromomycin, 455
Chromomycin A_3
DNA binding by, 788, 789
structure of, 787
Chymotrypsin
activation of, 683, 1026-28
active site of, 625, 627
in affinity chromatography, 263-66
association of, 656
catalysis by, 1028, 1029
crystal-substrate binding, 1017
energy transfer in, 99, 102, 103
mechanism of, 324
nuclear magnetic resonance of, 625-27
polymerization of, 664
substrate binding by
in crystals, 1017
nonproductive, 1021
and pH, 1028
site of, 1026, 1027
X-ray crystallography of, 682, 683, 1026
Chymotrypsinogen
association of, 664
and chymotrypsin formation, 1026, 1027
energy transfer in, 101
sequence of, 1026
X-ray crystallography of, 682, 683, 1026
Cinerubins, 789
Circular dichroism
of actinomycin, 779
of glutamic dehydrogenase, 334
of histones, 300, 302
of kanchanomycin, 803
of mitochondria, 245
of proteolipid protein, 637
of RNA polymerase, 722
of tRNA, 1053
Circulin, 452
Citrate analysis, 580
Citrate synthetase, 128
Clinical biochemistry
automation in
commerical instruments, 584-86
continuous flow, 578, 584
GeMSAEC, 585, 586
and human error, 577
procedures for, 584
and standardization, 576
enzyme assays in
blood cells, 592-94
procedures of, 574, 575, 580, 581
reliability of, 577
manpower needs in, 594-96
and metabolic abnormalities in blood cells, 592, 593
and cell culture, 594
intrauterine diagnosis, 594
serum analysis, 592
methodology in
amino acids, 586
and diet, 591, 592
drug effects, 590, 591
enzymes in, 577
fluorometric, 577, 578
gas chromatography, 586, 587
high-resolution chromatography, 586
instrumentation, 577, 578, 584-87
table, 578-83
and multiphasic screening
cost of, 588, 589
longitudinal, 589, 590
practices in, 588, 589
value of, 588, 589
normal levels in, 587, 588
reviews of, 574
role of, 573, 574
specificity in
and diet, 591, 592
and drug therapy, 590, 591
standardization of
dyes, 576
erythrocytes, 576
and normal levels, 587, 588
procedures, 574-77
proteins for, 575
and purity of chemicals, 574-76
sera, 575, 576
units in, 576
Codeine demethylase, 507, 510
Colcemid, 642
Colchicine
axon growth, effect on, 642
neurotubule protein binding, 642-44
Colicinogenic factors
as DNA, 912
as DNA-protein complex, 881
replication of, 871
Colistin biosynthesis, 455
Collagen synthesis, 521, 522
Concanavalin A, 49
Conformation
of ACTH, 96
of actinomycin, 781, 783
of alkaline phosphatase, 325
of amino acids, 611, 612
of aminoacyl-tRNA synthetases, 1060

of aspartokinase-homoserine dehydrogenase, 334, 335
and chymotrypsin activation, 1026-28
and enzymic reactions
induced fit in, 1020
side-chain movement, 1021
of glucagon, 613
of gramicidin S, 612
in hemoglobin
and heme-heme interactions, 618, 619, 1025
and heme spin label, 233, 234
and iodoacetamide spin label, 229-31, 234
and ligand binding, 228, 336, 337, 1020, 1021, 1023, 1025
and quaternary structural change, 228-31, 234, 336
and triphosphate spin label, 232-34
of histones, 300-2, 305, 306, 620
of insulin, 613
of lactic dehydrogenase, 683, 1020, 1035, 1036
of lysozyme, 326, 617, 618, 1020
of mitochondrial membranes, 149, 150
of myosin, 103
of nonactin, 613
of nucleic acids, 609-11, 1051, 1052, 1056-61
of nucleosides, 609, 610
of nucleotides, 609-11
and protein association
in acetyl coenzyme A carboxylase, 663
in glutamic dehydrogenase, 667
rates of, 659, 661
of proteins
and energy transfer, 85, 103
of proteolipid protein, 637
of ribonuclease, 618
of ribosomes, 701
of RNA polymerase, 720-22
of staphylococcal nuclease, 618
and subunit interactions
in hemoglobin, 680, 681
in hysteretic enzymes, 687-89
of tRNA
and fluorescence, 1051, 1052
and ribosome binding, 1056, 1057
and synthetase interactions, 1057-61
Copper
analysis of, 578, 593
in dopamine-β-hydroxylase, 472, 473
as nutrient, 556, 565, 567
Copulin, 535
Corticosteroids
and histones, 297
and RNA synthesis, 307, 308
Corticotropin, 814
CI protein
DNA binding by, 837, 838
in lysogeny
mechanism of action, 841, 842
and RNA synthesis, 831-33, 836-40
site of action of, 835-37
and N protein, 832, 833, 840
as repressor, 830-34, 836, 837
self-regulation of, 831, 832, 840, 841
in sequential regulation, 837
thermolabile, 845
Creatine kinase
oscillations in, 240
relaxation spectra of, 338
Creatine phosphokinase analysis, 581
CTP synthetase, 664
Cyanogen bromide
in affinity chromatography, 270
Cyclic AMP
and amino acid transport, 764
analogs of, 749-51
assay of, 748, 749
biological activity of
analogs of, 749-51
and catabolite repression, 752, 753
and enzyme activity, 755-58
and gene transcription, 752, 753
glucocorticoid effect on, 761, 762
and membrane permeability, 762-65
and messenger RNA translation, 753, 754
models of, 765, 766
and morphogenesis, 764, 765
and protein synthesis, 752-54
and secretion, 765
and calcium transport, 519, 763, 764
and catabolite repression, 730
and catecholamine effect, 467, 491, 492
derivatives of, 749-51
and enzyme activity
glycogen phosphorylase, 755, 756
glycogen synthetase, 756
phosphofructokinase, 756, 757, 765
phosphorylase kinase, 755
phosphorylase kinase kinase, 755
phosphorylase kinase phosphatase, 756
protein kinase, 748, 755, 757, 758
epinephrine, effect on, 354
formation of
adenyl cyclase, 743-46
oxytocin effect, 745, 763
vasopressin effect, 745, 762, 763
and fructose 1,6-diphosphatase, 356
and gene transcription, 752, 753
in glycogen metabolism, 347, 348, 350, 351, 353, 755, 756
and glycogen phosphorylase
interconversion of, 755
and phosphorylase kinase, 755
and phosphorylase kinase kinase, 755
and glycogen synthetase, 756
and glycogen synthetase kinase, 353
and histone phosphatase, 758
and histone phosphorylation, 294, 364, 365, 753, 758
hydrolysis of
and cyclic AMP diesterase, 746-48
NADPH-linked, 747
and lipase, 357, 759
and lipolysis
adenyl cyclase in, 758, 759
energy requirement, 759
glucocorticoid effect, 761
hormones in, 758, 759
role of, 758, 759
and morphogenesis, 764, 765
and neurotubule protein

phosphorylation, 644
and phosphofructokinase activation, 147, 756, 757, 765
and phosphorylase kinase, 350
and phosphorylase kinase phosphatase, 756
and phosphorylase phosphatase, 351, 352, 755
and potassium transport, 763
and protein kinase, 748, 755, 757, 758
and protein synthesis
gene transcription, 752, 753
inhibition of, 754
translation, 753, 754
and purine salvage, 817
and pyruvate dehydrogenase, 356
receptor protein for, 730, 731
and RNA polymerase, 729-31
and slime mold aggregation, 539, 540, 542
and sodium transport, 763
and steroidogenesis, 754, 760, 761
and transcription
and catabolite repression, 752, 753
effect on, 752
in eukaryotes, 753
initiation of, 752, 753
mechanism of action, 753
and translation
in cell-free systems, 754
effect on, 753, 754
in eukaryotes, 754
Cyclic AMP diesterase
assay of, 749
characterization of, 747
regulation of
inhibition, 747
by insulin, 747, 748
specificity of, 746, 750
Cyclic GMP
isolation of, 750
levels of, 751, 752
and protein synthesis, 754
Cyclic IMP, 754
Cyclic nucleotide-3'-phosphohydrolase, 641, 642
Cysteine analysis, 580
Cystine analysis, 593
Cytidine deaminase, 664
Cytochalasin B, 642
Cytochrome a
localization of, 120
redox potential of, 126
Cytochrome a_3
localization of, 120
redox potential of, 126
and site III phosphorylation, 134
Cytochrome b
antimycin effect on, 134, 150
localization of, 120
and respiratory chain
in brown adipose tissue, 146
electrons carried, 124, 125
site II phosphorylation, 125, 126, 134
Cytochrome c
chemical modification of, 1029, 1030
and ion transport, 140
localization of, 120, 121
nuclear magnetic resonance of, 616
photooxidation of, 203, 204
redox potential of, 1031, 1032
redox state of, 127
structure of
heme in, 1029, 1030
and oxidation state, 1031
sequences of, 1031
by X-ray crystallography, 1029, 1030
Cytochrome f
in greening, 181-83
in photosynthesis
function of, 210, 211
localization of, 210
photooxidation of, 203, 213
and pigment 700, 208, 210
and plastocyanin, 208, 209
Cytochrome oxidase
components of, 126
function of, 126
localization of, 386, 387, 390
Cytochrome reducing substance
antibody to, 205
demonstration of, 202-4
and ferredoxin reducing substance, 205
molecular weight of, 204
nature of, 203, 204
Cytokinin, 1049

D

Daunomycin
DNA binding by
model of, 790
strength of, 790
and mitosis, 791
and RNA synthesis, 790
structure of, 789
DDT sensitivity, 190
Deformylase, 402
Dehydroquinase
in Neurospora
and arom aggregate, 945
functions of, 945, 946
Deoxycytidylate deaminase, 440
3-Deoxy-D-arabinoheptulosonate-7-phosphate synthetase, 265, 266
Deoxythymidine kinase, 665
Depsipeptides
biosynthesis of, 459, 460
metal binding of, 451
Diets
commerical
mineral mixtures, 550, 551, 566, 567
stock rations, 553, 554
description of, 552
minerals in
commerical, 550, 551
deficiency of, 555-57, 560, 561, 565
mixtures of, 560, 561
omissions of, 559, 560, 562
requirements in
methods, 564, 566
references, 564
standards, 564
vitamins in
commerical mixtures, 558, 559, 566
deficiency of, 555-59
omission of, 557-59
zinc in, 562, 563
Dihydroflavin nucleotide-nitrate reductase, 365
Dihydrofolate reductase
amethopterin affinity of, 952
regulation of, 951-53
as repressor, 951, 952
Diimidazolyl ferrohemochrome, 133, 134
Diketopiperazines, 458
Dipeptide permease, 398
Diplococcus pneumoniae, 952
Diphtheria toxin
and protein synthesis, 361, 433, 434, 703
DNA
chemical synthesis, 869
in chloroplasts
amount of, 187
base composition of, 186, 187

and chloroplast RNA, 190, 191
demonstration of, 186, 187
information in, 190-92
localization of, 188, 189
5-methylcytosine in, 187
and ribosomal proteins, 191
sequences in, 187, 188
and chloroplast structure
and carotenoid synthesis, 189
and chlorophyll synthesis, 189
chloroplast DNA, 188-90
nuclear, 189, 190
and photosynthesis, 189, 190
and starch synthesis, 190
circular
in animal viruses, 914, 915
attachment sites for, 925, 926
and bacterial chromosomes, 909
in bacteriophage, 909, 910
buoyant density of, 903
catenated, 901, 904, 905, 917, 918
cohesive ends in, 901
of colicinogenic factors, 912
copies of, 922, 923
of defective phage, 913, 914
discovery of, 900, 901
dissociation of, 921, 922
dye binding of, 903
eukaryotic, 914-19
genetic events of, 919-22
incompatability in, 924
integration of, 919-22
isolation of, 905, 906
in kinetoplasts, 918
in mitochodria, 902, 905, 916-18
nuclear, 915, 916
in nucleoli, 916
pH effect, 902
in plasmids, 910, 914
in prokaryotes, 909-14
properties of, 901-5
relaxation complexes of, 907-9, 912
relaxed circles, 901, 902, 905
replication of, 922, 924-34
of resistance factors, 912, 913
segregation of, 922, 924, 925
sex factors, 910-12
supercoiling in, 901-5, 917, 919
thermal denaturation of, 902, 903
transfer of, 920, 921
winding numbers, 903, 904
of colicinogenic factors, 912
and cI protein binding, 837, 838
of defective phage, 913, 914
denaturation factor for, 879, 880
DNA polymerase binding by, 857, 858
duplication of, see DNA synthesis
dye binding by, 903
electronmicroscopy of, 858, 862
episomal
integration of, 919, 920
nature of, 919
transfer of, 920, 921
in eukaryotes
circular, 914-19
kinetoplast, 918
mitochondrial, 916-18
nuclear, 915, 916
in nucleoli, 916
viral, 914, 915
helix in
and base stacking, 609, 610
and hydrogen bonding, 609
and histones, 297-302, 305, 306
hybridization of
and repeated sequences, 997, 998
kinetoplast, 918
in mitochondria
catenated, 917
and chloroplast DNA, 187
circularity of, 902, 905, 916-18
copies of, 923
function of, 916
oligomeric, 917
size of, 916
in plasmids, 910, 914, 921, 922, 926
recombination in
base sequence involved, 850
site specific, 842-50
relaxation complexes of
in colicinogenic factors, 912
isolation of, 907
models of, 908, 909
and relaxation factor, 907, 908
relaxation of, 907, 908, 912
and strand specificity, 907, 908
renaturation of, 879
repair of
and endonuclease I, 873
mechanism of, 860, 861, 863
in pol A mutants, 869, 870, 873, 874
and prophage induction, 834
requirements for, 858-60, 873
replication of
and histones, 296, 303
and prophage induction, 833, 834
see also DNA synthesis
of resistance factors, 912, 913, 919, 920-22
RNA polymerase binding of
conformational changes in, 720, 721
sigma factor role, 725-29
sites of, 717, 718
and RNA synthesis
in bacteriophage T7, 725, 726
ribosomal, 731
sigma factor role, 725-29
in sex factors
circularity, 911
integration of, 919, 920
molecular weight of, 911
purification of, 911, 912
transfer of, 920
supercoiled
and dye binding, 903
in mitochondria, 917
nuclease action on, 878
origin of, 905
pH effect, 902
and ω protein, 905
and salt concentration, 902
sedimentation of, 901, 902
and superhelix density, 904
thermal denaturation of, 902, 903
winding numbers, 903, 904
transfer of
chromosomal, 920
and DNA synthesis, 921
episomal, 920, 921

strand transferred, 920, 921
DNA ligase
assay of, 875, 876
of bacteriophage T4, 876
in DNA synthesis, 876, 884, 885
forms of, 875
function of, 876, 877
mutants of, 876, 877
and NAD, 875, 876
substrates for, 875
DNA polymerase
activators of, 856
active center of, 863
acylation of, 865
bacteriophage T4 induced
mutants of, 857, 863
nuclease activity, 859
in repair, 859, 860
in replication, 871
binding sites of
AMP, 628, 629
ATP, 628, 629
for DNA, 857, 858
for nucleoside triphosphates, 857, 858, 863
3'-OH-ribonucleotide, 857, 858, 863
for template, 857
and circular plasmids, 931
cleavage of, 865, 866
and ϕX 174 DNA, 927
electronmicroscopy of, 858
in eukaryotes, 866, 867
fragment of, 674
inhibition of
by actinomycin, 778, 779, 783, 784
by anthramycin, 796, 856
by chromomycin, 788
by hedamycin, 792
by kanchanomycin, 804, 805
by mithramycin, 788
by nalidixic acid, 856
by olivomycin, 787
by phleomycin, 795, 856
mitochondrial
inhibition of, 856
properties of, 867
molecular weight of, 674
mutants in
and DNA replication, 863, 870, 871
and phage growth, 870
and polymerase II, 871
and repair, 870
revertants of, 869
selection for, 869, 870
nuclear magnetic resonance of, 628, 629
nuclease activity of
and double helix, 858, 859
and phosphate terminus, 858, 859
and polymerization, 859-61
products of, 859
and repair, 859-61, 863
separation of, 865, 866
and thymine dimers, 859
T4 specific, 859
polymerization by
and branched products, 861, 870
direction of, 860, 870
initiation of, 862, 864, 865, 886
for net synthesis, 861, 862
and nick translation, 858, 860, 861, 863
and nuclease, 860, 861, 865, 866
primer for, 858, 864, 865
in repair, 859-61
and strand exchange, 860, 862
properties of, 856-69
pyrophosphate exchange by, 858
pyrophosphorolysis by, 858
in repair
mechanism of, 863
and nick translation, 858, 860, 861, 870
requirements for, 858-60
role of, 863
RNA dependent
demonstration of, 867, 868
product formed, 868
template for, 868
role of
and repair, 863, 870
in replication, 870, 871
DNase
in Bacillus subtilis, 859
deoxyribonuclease III, 859
in recombination, 859
in RNA polymerase preparations, 713
see also DNA polymerase, Endonuclease I, Staphylococcal nuclease
DNA synthesis
actinomycin effect, 778, 779
chemical, 869
and chloramphenicol-insensitive protein, 882, 928
and circular DNA
attachment sites, 925, 926
catenated, 933
copies made, 922, 923
cyclic intermediates in, 929-31
initiation, 926-29
mechanism of, 922
mutant studies, 931
nicking of, 909
oligomeric, 933, 934
in polyoma virus, 914
relaxation complex of, 909
rolling-circle model, 915, 929, 930
segregation, 922, 932, 933
termination, 931-33
in colicinogenic factors, 881
cyclic intermediates in
and bacteriophage DNA, 930, 931
and circular DNA, 929-31
in mutants, 931
denaturation factor in, 879, 880
direction of, 860
DNA ligase role, 875-77, 884, 885
by DNA polymerase
activators, 856
bacteriophage induced, 857, 859, 860, 863
in eukaryotes, 866, 867
inhibitors, 856
initiation of, 864
mitochondrial, 856, 867
and nuclease, 858-63
nuclease activity of, 861
product formed, 859-62
RNA dependent, 867, 868
in DNA polymerase-deficient mutants
ATP requirement, 872-74
and DNA polymerase, 870, 871, 874
in vitro, 871-75
phage infected, 872, 874
preparations used, 872-75
product formed, 872
and repair, 869, 870, 873, 874
requirements, 874, 875
selection of, 869, 870
and DNA transfer, 920, 921
in eukaryotes, 915
and histone phosphorylation, 294, 296, 303

inhibition of
by anthracyclines, 790, 791
by anthramycin, 797, 798
by bleomycin, 795
by carzinophyllin, 794
by chromomycin, 787
by hedamycin, 792, 793
by kanchanomycin, 803, 804
by mithramycin, 787
by mitomycin, 793
by olivomycin, 787
by phleomycin, 795
by pluramycin, 792, 793
by streptonigrin, 794
initiation of
control of, 886, 926, 927
DNA polymerase role, 864, 865
membrane role, 884
models of, 886-88
in mutants, 928
and nicks, 862, 927, 929
nuclease role, 886, 927, 929
and protein synthesis, 882, 927, 928
mechanism of
in animal cells, 885
bidirectional, 889, 890
discontinuous, 884-86
and DNA ligase, 876, 884, 885
and initiation frequency, 886
models of, 886-89
origin in, 889
single stranded, 885, 889
and membranes, 872, 883, 884
in mitochondria, 856, 867
models of
and circular DNA, 925, 930
and initiation, 862, 886-88
prefork, 886
retrograde initiation, 886, 887, 889, 890
rolling circle, 887-90, 915, 921, 929, 930
nucleases in, 877, 878
in permeable cells, 872, 873
ω protein in, 880, 881
repair
and endonuclease I, 873
mechanism of, 860, 861, 863
and nick translation, 860, 861
in pol A mutants, 869, 870, 873, 874
and prophage induction, 834
requirements, 858-60, 873
rolling-circle model of
and asymmetry, 930
and circular DNA, 915, 929, 930
features of, 929
segregation in, 922, 932, 933
of single-stranded circles, 883
in spores, 930
termination of
and circular DNA, 931-33
and cyclization, 931, 932
Dopa decarboxylase
inhibition of, 471
purification of, 471
pyridoxal phosphate in, 471
role of, 470
Dopamine
biosynthesis of, 468
in chromaffin granules, 482
function of, 466
metabolism of
catechol-O-methyltransferase in, 478
monoamine oxidase in, 476, 477
pathway of, 475, 476
storage of, 482
uptake of, 481, 482
visualization of, 466
Dopamine-β-hydroxylase
activity of, 468, 472, 479, 490, 491
assay of, 472
in chromaffin granules, 472, 473, 481, 483
copper in, 472, 473
and hypophysectomy, 489
inhibition of, 473
regulation of, 489, 490
release of, 484
specificity of, 472
Down's syndrome, 593
DPN
see NAD
DPN diaphorase
transport of, 486, 487

E

Edeine
biosynthesis of
cell-free, 453, 456
in cells, 456
and protein synthesis, 703-7
Ehrlich ascites cells, 117, 1048
Elastase
activation of, 1028
X-ray crystallography of, 682, 683
Electron cytochemistry
artifacts in, 380, 381
controls in, 381
definition of, 376
with diaminobenzidine, 386, 390-92
of hydrolases, 382-84, 388, 389
in immunology, 391, 392
of intracellular organelles, 390
limitations of, 376, 377
marker enzymes, 389, 390
by osmiophilic staining, 384-89
of oxidases, 386, 388
of oxidoreductases, 384
and tissue fractionation, 376
tissue preparation, 381, 382
see also Enzyme localization, specific enzymes
Electronmicroscopy
of chloroplast DNA, 188, 189, 918
of chloroplasts, 161-68, 171-74, 178, 179, 188, 189
of DNA
chloroplast, 188, 189, 918
and circularity, 900, 901, 911, 914-16
and DNA polymerase binding, 857, 858
DNA polymerase synthesized, 862
kinetoplast, 918
mitochondrial, 916, 917
and replication, 930
of SV 40, 914, 915
of enzymes
see Electron cytochemistry, Enzyme localization
and freeze etching, 163
of tRNA, 1064
Electron paramagnetic resonance
of NADH dehydrogenase, 122
and site I phosphorylation, 123, 124
and ubiquinones, 124
Electron transport
in chloroplasts, 161, 162
in photosynthesis
chlorophyll II in, 219, 220

components of, 199-221
and cytochrome reducing substance, 203-5
cytochromes in, 209-13
ferredoxin in, 198, 201-3
and ferredoxin reducing substance, 204, 205
light reactions in, 198-200
manganese in, 220, 221
and NADP, 198-200
photochemical systems in, 198, 199
pigment 700 role, 205-7
plastid quinones in, 213-17
plastocyanin in, 207-9
substance Q in, 217-19
rotenone sensitive, 121
ubiquinone in, 124
vitamin A in, 511, 512
see also Oxidative phosphorylation
Encephalitogenic protein
chemical modification of, 639, 640
in development, 641
electrophoresis of, 636, 638
immunological properties of modified protein, 639
and multiple sclerosis, 638
isolation of, 638
as myelin component, 636, 637
physical properties of, 638, 639
sequence of, 639, 640
Endonuclease I, 873, 901
Endoplasmic reticulum
marker enzymes in, 390
Energy transfer
in ACTH, 95
in amino acids, 94
definition of, 84
in dipeptides
and aromatic amino acids, 92, 93
quenching of, 92
and separations, 93
in heme proteins, 106, 107
in indole, 92
in insulin A chain, 96
in NAD enzymes, 107, 108
in oligopeptides
and aromatic amino acids, 93, 94
and separations, 93
in organic molecules, 86
in parathyroid hormone, 96
in phenol, 92
in photosynthesis, 86
in phycocyanin, 107
physical basis of, 86
in polynucleotides, 86
in polypeptides
and aromatic amino acids, 93, 94
dye conjugates of, 94, 95
molecular weight effect, 93
separation effect, 95
in protein-dye conjugates
applications of, 100
to dye, 100-4
among fluorescent groups, 104, 105
to nonconjugated acceptor, 105, 106
to protein, 104
in proteins
conditions for, 84, 85
and conformation, 85, 90, 103
and donor quantum yield, 89
dye conjugates of, 100-6
extent of, 85
and fluorescence, 84
fluorescence characteristics, 96, 97
heme, 106, 107
and index of refraction, 89
and iodotyrosines, 99, 100
mechanisms of, 84
methods, 90, 92
NAD enzymes, 107, 108
and orientation factor, 89, 90
phenylalanine as donor, 97
phycocyanin, 107
physical basis of, 86
pyridoxal, 109
pyridoxamine, 108, 109
rate of, 87, 88
resonance mechanism in, 84, 85
separation effect, 87, 88, 91
in solution, 88
spectral overlap integral, 90
tryptophan role, 96-100
tyrosine role, 96-99
and uv inactivation, 84
see also individual proteins
pyridoxal phosphate in, 109
pyridoxamine in, 108, 109
resonance mechanism in
conditions for, 84, 85
and donor quantum yield, 89
and fluorescence, 84, 85
and index of refraction, 89
methods in, 90, 92
and orientation factor, 89, 90
physical basis of, 86
rate of, 87, 88
and separation, 87, 88
in solution, 88
spectral overlap integral, 90
terminology, 84, 85
theory of, 87
Enolase, 676
Enzyme kinetics
in allosteric enzymes, 686, 687
and self-association and allosterism, 660
binding sites of, 661
ligand binding equations, 660, 661
measurement of, 659, 660
rate of, 661, 662
Enzyme localization
with diaminobenzidine, 390-92
by electron cytochemistry, 376
and enzyme characteristics
extraction of, 378
fixation of, 378, 379
specificity of, 377, 378
factors affecting
enzyme characteristics, 377-79
extraction, 378
fixation, 378, 379
reaction characteristics, 379-81
substitutes for, 377, 378
with ferricyanide, 384
fixation techniques
aldehydes in, 378, 379
glutaraldehyde in, 379
necessity of, 378
of hydrolases
acetylcholinesterase, 383, 384, 389, 390
acid phosphatase, 382, 390
alkaline phosphatase, 382, 390
aminopeptidase, 388
ATPase, 383

glucose 6-phosphatase, 383, 390
γ-glutamyl transpeptidase, 388
metal precipitation, 382
methods, 382, 388, 389
thiamine pyrophosphatase, 383, 390
in immunology, 391
marker enzymes, 389, 390
by osmiophilic staining, 384-89
oxidases
cytochrome oxidase, 386
methods, 386, 388
peroxidase, 386
of oxidoreductases, 384
with peroxidase tracer
in immunology, 391, 392
and permeability, 391
principles, 390
and reaction characteristics
artifacts in, 380, 381
products, 380
simultaneous capture mechanisms, 379, 380
with thiocarbohydrazide, 385
by tissue fractionation, 376, 377
tissue preparation
chopped sections, 381
embedding media, 381, 382
Enzyme reaction mechanisms
of flavoproteins, 335
hydrolytic enzymes, 324-27
in metabolism, 339, 340
NAD-linked dehydrogenases, 327-35
and rapid reaction techniques
flow methods in, 316-18
relaxation techniques, 318-20
and substrate recognition, 316
value of, 315, 316
and relaxation spectra, 322-24
relaxation techniques in, 318-20
and transient kinetics
and enzyme intermediates, 320-22
interpretation of, 320-22
model in, 321, 322
and reactants, 320, 321
see also specific enzymes
Enzymes
analysis of, 580, 581
see also specific enzymes
Enzymic catalysis
model studies of, 1019
and orientation, 1019
and propinquity, 1019, 1020
and proximity, 1019, 1020
solvation effect, 1020
specificity of
and conformational changes, 1020, 1021
and induced fit, 1020, 1021
and nonproductive complexes, 1021, 1022
and strain, 1021
and substrate fit, 1022
theories of, 1018-22
Epinephrine
and adenyl cyclase, 744-46
and amino acid transport, 764
analysis of, 580
and calcium transport, 764
and glycogenolysis, 354
and glycogen phosphorylase, 760
and glycogen synthetase, 355
and potassium transport, 763
Equilibrium dialysis
of RNA polymerase, 718
Erythrocytes, 576
Erythropoietin, 745
Escherichia coli
acetyl coenzyme A carboxylase of, 663
adenyl cyclase of, 743
alkaline phosphatase of, 324, 325, 664, 678
aminoacyl-tRNA synthetases of
characterization of, 1057, 1058
regulation of, 956
specificity of, 1058-61
anthranilate synthetase of, 947
arginine synthesis in, 945, 961
aspartokinase-homoserine dehydrogenase of, 334, 335
bacteriophage replication in, 857, 859, 860, 863, 864, 870-72, 876, 882, 883
bacteriophage T4 infected
ATPase in, 878
DNA ligase of, 876
DNA polymerase of, 857, 859, 860, 863, 871
nucleases of, 877
catabolite repression in, 752
cell wall of, 30-33, 35-39
chromosomal attachment sites in, 884
colicinogenic factors of, 871, 881, 912
cyclic AMP diesterase of, 747
defective phage in, 913, 914
DNA of
attachment sites for, 925, 926
circular nature, 909
copies of, 922
dissociation of, 921, 922
incompatibility of, 924
replication of, 925, 926
in sex factors, 910-12, 919, 920
DNA ligase of, 875-77
DNA polymerase of
activators of, 856
active center of, 863
inhibitors of, 856
initiation by, 864
mutants in, 869, 870
nuclear magnetic resonance of, 628, 629
nuclease activity of, 858, 859, 861, 865
and φX 174, 927
primer for, 864, 865
role of, 863, 870, 871
substrate binding by, 857, 858
endonuclease I of
and DNA repair, 873
and superhelical repair, 878, 901
formylmethionyl-tRNA in, 411, 412
β-galactosidase of
affinity chromatography of, 267, 268
oscillations in, 248
galactosyltransferase of, 37
glutamine synthetase of
properties of, 357, 358
regulation of, 357-61
glycoproteins of, 39
leucyl-tRNA synthetase of, 346, 363, 364
lipopolysaccharide of
inner core of, 32
outer core of, 30, 31
phospholipid-protein complex, 36, 37
structure of, 30, 31
methionyl-tRNA in, 411, 412
mutator strains of, 857

nucleases in, 877, 878
peptidases of
level of, 401
nature of, 400, 401
and protein synthesis, 402, 403
and protein turnover, 403
peptide formylase of, 417
peptide transport in, 399
peptidoglycan of, 37
permeability of, 777, 778
plasmids in, 910-14, 921
pol A mutants of
and DNA polymerase, 870, 871
and DNA repair, 869, 870
DNA synthesis in, 871-75
selection, 869, 870
proteases in, 405
ω protein of, 880, 881, 905
protein kinase of, 757
protein synthesis in
with bacteriophage RNA, 419
elongation, 424-31
enzymes, 440
formylmethionyl-tRNA in, 411-15
GTP role, 414, 426, 427, 430, 431
initiation of, 411-20
initiation factors in, 412-15, 419, 420
methionine in, 411, 417
peptidase role, 402, 403
ribosomal subunit role, 412, 416
termination, 435-40
protein turnover in, 403
pyruvate dehydrogenase of, 356
pyruvate formate lyase of, 346, 362, 363
relaxation factor of
nature of, 907, 908
synthesis of, 908
resistance factors of, 912, 913
ribosome dissociating factor of, 416
RNA polymerase of, 712-19
sex factors in
circularity of, 911
properties of, 910, 911
transcription in, 752, 753
transformylase of, 420, 421, 423
tRNA of
crystallization of, 1062, 1063
methylation of, 1050, 1051
minor nucleosides in, 1049
purification of, 1046, 1047
sequences of, 1048
suppressor, 1057
Estradiol receptor protein, 271
Estriol analysis, 583
Estrogen
and adenyl cyclase, 745
Ethidium bromide
DNA binding of, 903, 906
and tRNA structure, 1052
N-Ethylmaleimide, 454
Euglena gracilis
chloroplast DNA of, 187, 188, 190
chloroplast ribosomes of, 190
chloroplasts in, 169
phosphatase of, 365
Exposure calculations
and folding, 1015, 1016
in lysozyme, 1015-17
method of, 1015

F

Fabry's disease, 62, 73, 593
FAD
in D-amino acid oxidase, 666
complexes of, 610
nuclear magnetic resonance of, 610
and retinal oxidase, 503
Fatty acids
activation of, 146, 147
analysis of, 581
in glycosphingolipids, 62
Fatty acid synthetase, 671
Ferredoxin-NADP oxidoreductase
antibodies to, 203
complexes of
with ferredoxin, 201
with NADP, 201, 335
properties of, 200, 201
purification of, 200, 201
specificity of, 199
Ferredoxin reducing substance
antibodies to, 204, 205
and cytochrome reducing substance, 205
demonstration of, 204
Ferredoxins
evolution of, 202
molecular weight, 202
in photosynthesis
reduction of, 202, 203
role of, 198, 199, 202
sequences of, 202
Ferritin analysis, 581
Fibrin
use in surgery, 18
Fibrinogen
analysis of, 581
clotting of, 103
fluorescence of, 103
Ficin, 324
Flavokinase, 265
Fluorescence
of ACTH, 95
of antimycin, 150
of chloroplasts, 183, 184
of lysozyme, 326
of NADH
and alcohol dehydrogenase, 328, 329
and lactic dehydrogenase, 331
of peptides
aromatic amino acids in, 92-94
quenching of, 94
and protein association, 658, 659
of proteins
and amino acid chromophores, 96-100
dye conjugates of, 100-6
energy transfer in, 84, 85, 96-110
and prosthetic groups, 106-10
see also specific proteins
in relaxation processes, 319
of staphylococcal nuclease, 339
in stopped-flow spectrophotometry, 317
of tRNA, 1051, 1052
Fluorescence depolarization, 92
Fluorescence polarization
of dipeptides, 93
and lactoglobulin association, 656
measurement of, 92
of oligopeptides, 93
of polypeptides, 93
Fluorescence quenching, 718
Fluoride analysis, 578
FMN
in NADH dehydrogenase, 122
Folate analysis, 593
Forssman glycolipid, 63
Fructose 1,6-diphosphatase
affinity chromatography of, 264

modification of, 346, 356, 357, 365, 366
phosphorylation of, 346, 356
regulation of, 346, 356, 357, 366, 672
Fructose diphosphatase kinase, 356, 357
Fusidic acid
and protein synthesis, 414, 430, 701, 703

G

Galactose phosphate uridyltransferase, 593
β-Galactosidase
in affinity chromatography, 262-64, 267, 268
regulation of, 965
subunits of, 674
synthesis of
and catabolite repression, 730
in vitro, 440
model of, 251
oscillations in, 248
α-Galactosidase analysis, 593
Galactosyltransferase
in E. coli, 37
properties of, 36, 37
Gamma globulins
energy transfer in, 105
Gangliosides
analysis of
quantitative, 58
separation, 57, 58
biosynthesis of, 49, 50
function of, 75, 76
structure of
carbohydrate of, 49, 50, 65
Tay-Sachs, 62, 73
synthesis of, 68-71
and viral transformation, 49-51
Gas chromatography
automation of, 586, 587
of glycosphingolipids, 59, 60
Gaucher's disease, 72, 593
GDP, 425, 426
Gelatin fluorescence, 96
Gel filtration
of histones, 283
of RNA polymerase, 714, 715
Gibberelic acid, 744
Glass beads
in affinity chromatography, 262, 263
Glial proteins, 647, 648
Globosides
immunology of, 74, 75
structures of, 63
Glucagon
adenyl cyclase stimulation by, 744-46
and amino acid transport, 764
and calcium transport, 763, 764
and glycogen phosphorylase, 760
and histone phosphorylation, 753
nuclear magnetic resonance of, 613
and protein synthesis, 753, 754
Glucocerebrosidase, 72
Glucocorticoids
and catecholamine regulation, 489
and cyclic AMP
interaction of, 762
and lipolysis, 761
and protein synthesis, 761, 762
and tyrosine transaminase, 761
and glycogen synthetase, 353, 355
Gluconeogenesis
and peroxisomes, 119
and reducing equivalent transport, 119
Glucosaminoglycans
see Mucopolysaccharides
Glucose analysis, 582
Glucose oxidase
analysis of, 581
reaction steps of, 335
Glucose 6-phosphatase
deficiency of, 814
localization of, 383, 390
Glucose 6-phosphate dehydrogenase
analysis of, 593
association of, 664
regulation of, 367
β-Glucosyltransferase, 440, 441
Glucuronidase
analysis of, 581
release of, 509
Glutamate decarboxylase, 664
Glutamic dehydrogenase
aggregation of, 333, 334
association of, 656, 664, 666, 667
chemical modification of, 667, 668
dissociation of, 667, 668
energy transfer in, 108
inactivation of, 367
mechanism of, 333, 334
regulation of, 666, 667, 679, 688
sequence of, 684, 685
subunits of, 666, 679, 686
synthesis of, 248
and vitamin D, 521
Glutamic-oxalacetic transaminase
fluorescence of, 108
mechanism of, 338
Glutaminase, 664
Glutamine analysis, 582
Glutamine synthetase
adenylylation of, 269, 358, 359
in affinity chromatography, 269
deadenylylation of, 358, 359
forms of, 358, 359
properties of, 357, 358
regulation of
by adenylylation, 269, 346, 358-61
by chemical modification, 346, 357-61
by feedback, 359
site of, 358
γ-Glutamyl transpeptidase, 388
Glutaraldehyde
as enzyme fixative, 379
purification of, 379
Glutarimide antibiotics
and protein synthesis, 703, 706, 707, 709
Glutathione, 133
Glyceraldehyde phosphate dehydrogenase
allosterism in, 242
asymmetry in, 333
catalytic sites of, 678
dissociation of, 757
fluorescence of, 107, 108
hybridization of, 675, 676, 678
mechanism of, 332, 333
model of, 685, 686
in multienzyme complexes, 672
NAD interactions of, 332, 333
reassociation of, 676
role in glycolysis, 117
sedimentation of, 673
structure of, 684, 685
and vitamin D, 520, 521
Glyceride analysis, 582
Glycerol analysis, 582
Glycerol 3-phosphate dehydrogenase
in affinity chromatography, 263, 266, 267
and glycolysis control, 117

localization of, 121
mechanism of, 340
in mitochondria, 117
in muscle types, 117
and NADH oxidation, 117
purification, 266, 267
reassociation of, 676
Glycogen
degradation
control of, 347-52, 755, 756
in vivo, 354, 355
and glycogen synthetase binding, 264
synthesis of
control of, 347, 348, 352-54, 756
in vivo, 355
Glycogenolysis, 491
Glycogen phosphorylase
activation of
and ACTH, 760
by cyclic AMP analogs, 750
and cyclic AMP assay, 748
and phosphorylase kinase, 755
active form of, 670
AMP binding sites of, 670
association of, 662, 665, 670, 671
energy transfer in, 109
epinephrine effect, 760
glucagon effect, 760
hysteretic effects in, 688
molecular weight of, 348
pyridoxal phosphate binding by, 349
regulation of
active forms, 346-49, 354, 355, 755
AMP requirements, 348, 670, 671
in different species, 346, 349
in vivo, 354
by phosphorylase kinase, 347, 348, 350, 351, 354, 355, 755
by phosphorylase phosphatase, 348, 351, 352, 755
by phosphorylation, 345-49, 354, 355, 755
site of, 349
and steroidogenesis, 760, 761
subunits of, 674
Glycogen synthetase
cyclic AMP effect on, 756
and glucocorticoids, 353, 355
glycogen binding of, 264
inhibition of, 354
occurrence of, 352, 353
phosphorylation of, 346-48, 353, 355
regulation of
active forms, 346-48, 352-54
by calcium, 353, 354
glucose 6-phosphate dependence, 352
hormonal, 355
in vivo, 354, 355
by phosphorylation, 346-48, 352-55
Glycogen synthetase kinase
activation of, 756
properties of, 353
regulation of, 348, 355
Glycogen synthetase phosphatase
action of, 353
regulation of, 347, 348, 353
Glycolic acid oxidase
in peroxisomes, 390
Glycolipids
and viral transformation, 49-51
Glycolysis
allosterism in, 242
control of, 117, 242
enzymes of, 339
and fatty acid activation, 147
glyceraldehyde phosphate dehydrogenase in, 117
malate-aspartate cycle in, 118, 119
and NADH reoxidation, 116-19
oscillations in
amplitude of, 240
ATP role, 241, 242
cell-free system, 240
control of, 240-43
in intact cells, 243
metabolic balance, 240
models of, 251
of NADH, 238, 240, 241, 243
requirements for, 240
significance of, 243
sugar effect, 240
Glycoproteins
biosynthesis of
and cell adhesion, 48
cell surface, 48
glycosidic linkage of, 43-47
Golgi apparatus in, 44, 45
immunoglobulins, 45, 46
ribosomes in, 45-47
transferases in, 43, 44, 48
transport of, 46
viral, 51-53
and vitamin A, 511
mammalian
biosynthesis of, 43-47
of cell surface, 47-51
function of, 48
immunoglobulins, 45-47
plasma type, 42
sialoglycoproteins, 47
structure of, 41-43
types of, 41
and virus transformation, 49-51
sialoglycoproteins, 47
structure of
chondroitin sulfate, 43
classes of, 42
mucopolysaccharides, 42, 43
plasma type, 42
and virus structure
formation of, 51, 52
in herpes viruses, 52
in Sindibis virus, 51, 52
Glycosidases
in sphingolipid analysis, 59
see also specific enzymes
Glycosphingolipids
analysis of
carbohydrate of, 59
gas chromatography in, 59, 60
mass spectrometry in, 59, 60
separation, 57-59
degradation of
and disease, 72, 73
enzymes of, 71, 72
sphinganine, 67, 68
functions of
immunological, 74, 75
in membranes, 74, 75
in myxovirus, 75, 76
and viral transformation, 75
nomenclature of, 57
structures of
backbone, 63
bases of, 60-62
in brain, 61
carbohydrate of, 62-65
classes of, 63
fatty acids in, 62
fucose in, 63-65
sulfatides, 62
synthesis of
biosynthesis, 66-71
chemical, 65, 66
enzymes of, 69, 70
Glycosyltransferases
in cell envelope, 36, 37

in glycoprotein synthesis, 43, 44
localization of
clusters of, 44
in Golgi apparatus, 44, 45
Golgi apparatus
and glycoprotein biosynthesis, 44, 45
glycosyltransferases in, 44, 45
marker enzymes in, 390
Gonadotropin, 745
Gout
allopurinol control of, 818
and hypoxanthine-guanine phosphoribosyltransferase, 818
Gramicidin
and bacterial growth, 402
and mitochondrial swelling, 244
Gramicidin A, 450
Gramicidin S
biosynthesis of
ATP role, 453, 454
cell-free, 453, 454
cyclization, 454
requirements, 453, 454
conformation of, 612
nuclear magnetic resonance of, 612
Growth hormone
analysis of, 582
fluorescence of, 99
GTP
neurotubule protein binding of, 643, 644
in protein synthesis
elongation, 426, 427, 430, 431, 433, 434
in eukaryotes, 433
and GTPase, 414, 425-28, 431
initiation of, 414, 424
stoichiometry, 431
T_u binding by, 426
GTPase
in protein synthesis, 425-28, 431
ribosome dependent, 414
Guanosine tetraphosphate, 731, 732
Guanyl cyclase, 750, 751
Gulonolactone oxidase, 507

H

Hedamycin
DNA interaction of
level of, 791, 792
nature of, 791, 792
stability of, 792
and RNA polymerase, 792
α-Helix
in calcium binding protein, 524
in histones, 301, 302
in lactic dehydrogenase, 1036, 1037
and nuclear magnetic resonance spectra, 613
in peptide antibiotics, 451
in proteolipid protein, 637
in RNA polymerase, 722
in staphylococcal nuclease, 1033
Hemocyanins
energy transfer in, 110
ultracentrifugation of, 15
Hemoglobin
analysis of, 582
conformational changes in
and ligand binding, 228-30, 233, 234, 336, 337, 680, 1020, 1021, 1025
and oxygen binding, 228-31, 234, 235, 336, 337, 1023, 1024
cooperative binding to
molecular basis of, 227, 336, 337
and paramagnetic resonance, 230
denaturation of, 625
diphosphoglycerate binding by, 675, 681
dissociation of
and dimers, 681
in high salt, 673, 674
early research, 7
fluorescence of, 106
heme-heme interactions in, 619, 620, 680
hemoglobin H
oxygenation of, 230
iodoacetamide derivatives of
and inositol hexaphosphate binding, 231
nature of, 229
oxygen binding by, 229-32, 234
spin resonance of, 229-31
ligand binding by
and conformation change, 228-30, 233, 234, 336, 337, 680, 681, 1020, 1021, 1023, 1025
cooperative, 227-30, 337, 682, 1023-25
diphosphoglyceric acid, 1026
interactions in, 680, 1023, 1024
iron role, 680, 1024, 1025
mutant
nuclear magnetic resonance of, 619
and oxygen binding, 680
nuclear magnetic resonance of, 615, 619, 625
oxygen binding by
and Bohr effect, 1025
and conformational change, 228-32, 234, 235, 336, 337, 1023, 1025
cooperative, 227, 228, 230, 337, 682, 1023-25
and dissociation, 681, 682
interactions in, 1023, 1024
iron role, 1024, 1025
model of, 685
significance of, 235
and subunit interactions, 680-82
quaternary structural change in, 228, 229, 336, 337
structure of, 228
subunit interactions in
and Bohr effect, 680-82
and dissociation, 664, 681, 682
and oxygen binding, 680-82
synthesis of
initiation of, 420-23
messenger RNA for, 415, 420
triphosphate binding by
nature of, 232
spin resonance of, 232, 233
X-ray crystallography of, 228, 335, 336, 1023-25
Heparin
and RNA polymerase, 717, 718, 721, 727
Herpes simplex virus, 52
Heteroduplex mapping, 848, 850
Hexokinase
analysis of, 593
mechanism of, 338
subunits of, 673
Histidine
analysis of, 582
biosynthesis of
enzyme aggregates in, 949
gene clusters in, 949
PR-ATP synthetase in, 954, 955
repression of, 954, 955
Histidine decarboxylase, 675
Histone kinase, 294, 295
Histone phosphatase, 758
Histones

adenosyl ribosylation of, 362, 365
antibodies to, 298
characterization of, 280, 282, 283
conformation of
in aqueous solution, 300
in chromatin, 301, 302
and DNA interaction, 301, 302, 305, 306
helix in, 301, 302
and ionic strength, 300, 301, 620
dephosphorylation of, 295
DNA interactions of
and conformation, 301, 302, 305, 306
double-stranded DNA, 298
model studies, 297-99
and precipitation, 299
and proteases, 299, 300
sites of, 298, 299
extraction of, 281, 282
fractionation of
classes of, 280
extraction, 281, 282
and heterogeneity, 281
methods of, 280-82
and subfractions, 281-83
functions of
and cell structure, 307
and chromosomal RNA, 305
and DNA synthesis, 294, 296, 303
and hormones, 307, 308
and nonhistone proteins, 304, 305
as nonspecific repressors, 304, 305
and proteases, 299, 300
and protein synthesis, 294
and RNA polymerase, 291, 305-7
and RNA synthesis, 291, 292, 296, 303-6
and supercoiling, 302, 305, 306
histone I
characterization of, 280
and DNA replication, 296, 303
methylation of, 292, 293
phosphorylation of, 293-96, 303
sequences in, 286-88, 295
subfractions of, 281-83, 293
histone II b1
composition of, 289, 290
sequences in, 289, 290
histone II b2
characterization of, 280, 283
phosphorylation of, 293-95
sequence of, 285, 286
histone III
acetylation of, 289, 291
characterization of, 280, 283
composition of, 288, 289
cysteine in, 296, 297
dimers of, 281
methylation of, 289, 292
phosphorylation of, 295, 296
sequence studies, 288, 289
subfractions of, 283
histone IV
acetylation in, 285, 291
characterization of, 280
and evolution, 285
methylation in, 284, 285, 292
residue clusters in, 284
sequence of, 283-85
subfractions of, 281-83
histone V
characterization of, 282
methylation of, 292, 293
phosphorylation of, 293
sources of, 281
modification of, 362, 364, 365
nomenclature of, 280
nuclear magnetic resonance of, 620
phosphorylation of
and cyclic AMP, 294, 364, 365, 753, 758
determination of, 294
enzymes for, 294
and protamines, 294-96
at serine, 293-95, 365
and polylysine, 298
primary structures of
and acetylation, 285, 289, 290
and evolution, 285
histone I, 286-88, 295
histone II b1, 289, 290
histone II b2, 285, 286
histone III, 288, 289
histone IV, 283-85
and methylation, 285, 289
residue clusters in, 284-90
uniqueness of, 284
side-chain modification in acetylation, 285, 289-92
at arginine, 293
by corticosteroids, 297
at cysteine, 296, 297
determination of, 294
by formaldehyde, 297
at histidine, 292, 293
at lysine, 284, 285, 289-92
methylation, 285, 289, 292, 293
nature of, 290, 291
phosphorylation, 293-96
role of, 291, 292
at serine, 293-95
and turnover, 291
sources of, 280, 281
Homoserine dehydrogenase
association of, 662, 665
hysteretic effects, 687, 688
TPNH binding by, 675
Hydrocortisone
and adenyl cyclase, 759
and amino acid transport, 764
and cyclic GMP, 751
p-Hydroxybenzoate hydroxylase, 335
β-Hydroxybutyrate dehydrogenase, 117, 118
25-Hydroxycholecalciferol, 516
5-Hydroxydopamine, 482, 483
6-Hydroxydopamine, 482, 483
Hydroxykynurenine analysis, 582
Hydroxylamine
and oxidative phosphorylation, 130
Hydroxymethylglutaryl-coenzyme A reductase, 366
Hydroxysteroid dehydrogenase, 505-7
Hydroxytryptamine analysis, 582
Hypoxanthine
excretion of, 816, 817
salvage of, 814, 815
Hypoxanthine-guanine phosphoribosyltransferase
azathioprine effect, 816
and gout, 818
hepatectomy effect, 816
Lesch-Nyhan syndrome, 816, 817
reaction of, 821
role of, 812, 816, 817
and uric acid excretion, 814

I

Ilamycins, 450
Immune response
  heterogeneity of
    and cell heterogeneity, 970, 971, 979
    and differentiation, 1007
  see also Immunoglobulins
Immunoglobulins
  amino acid sequences of
    genes encoding, 971, 979, 985-88, 991, 995, 998-1001
    and mutation, 986-90, 992, 995-97
    and recombination, 989-91, 993, 995-97
    regions of, 970, 971
    V regions of, 970-81, 983, 985-87, 990, 991, 993, 995-98, 1000-4, 1006
  biosynthesis of, 45-47
  diversity of
    analysis of, 991, 993, 995-97
    and back mutations, 986-88
    and clonal selection, 971, 979
    and coevolution, 1000, 1001, 1003
    correlation maps, 994
    genealogic relationships, 972-79, 982, 983, 986, 987, 990-96, 1005
    gene expansion-contraction, 998-1000, 1002
    germline theory, 979, 985-88, 996, 1002, 1003
    and heavy-chain allotypes, 1001-4
    intrasubgroup, 991-93, 995, 996
    and linkage groups, 1004-6
    patterns of, 996, 997
    and somatic mutation, 979, 987, 989, 990, 996, 997, 1001, 1002
    and somatic recombination, 979, 989-91, 996, 997
    and species specificity, 983, 998
    theories of, 971, 979, 983-87, 990, 991
    V-C gene joining, 1003, 1004, 1006, 1007
    and V-region subgroups, 971, 979, 983, 985
  as glycoproteins, 45, 46
  glycosylation of, 46, 47
  homogeneous, 970
  structure of
    and back mutations, 986-88
    cleavage of, 970
    C regions of, 970, 971, 979, 1004, 1005
    families of, 971
    and function, 971
    genealogy of, 972-79, 982, 983, 986, 987, 990-94, 1005
    general properties, 970, 971
    and germline theory, 979, 985-88, 996, 1002, 1003
    and somatic mutation, 979, 987, 989, 990, 996, 997, 1001, 1002
    and somatic recombination, 979, 989-91, 996, 997
    V regions of, 970-81, 983, 985-87, 990, 991, 993, 995-98, 1000-4, 1006
  transport of, 46
Immunology
  and antigen localization, 392
  of mannans, 39, 40
  of RNA polymerase subunits, 715
Inosine kinase, 813
Inosinic acid, 821, 823
Insulin
  and adenyl cyclase activation, 746
  affinity chromatography of, 273
  agarose derivatives of, 274, 275
  biosynthesis of, 951
  and cyclic AMP diesterase, 747, 748
  and cyclic GMP levels, 751, 752
  energy transfer in, 96
  exposure calculations of, 1015
  fluorescence of, 96, 97, 99
  and glycogen synthetase, 355
  insoluble, 269
  nuclear magnetic resonance of, 613
  receptors for, 274, 275
  secretion of, 492
  X-ray crystallography of, 20
Invertase, 40
Iodine
  analysis of, 578
  as nutrient, 556, 560, 565, 567
Ipecac alkaloids, 703, 705-7, 709
Iron analysis, 578
Isocitrate dehydrogenase
  allosterism in, 128
  binding sites of, 668, 669, 675
  hysteretic response of, 668, 669, 688
  polymerization of, 665, 668, 669
  subunits of, 668
Isopropylmalate synthetase, 665

J

Juvabione
  activity of, 1090-92
  analogs of, 1084, 1085
  isolation of, 1081
  isomerism in, 1092
  structure of, 1081, 1092
Juvenile hormone
  activity of, and structure, 1088-90
  assay of
    morphological, 1082
    and ovarian development, 1083
    standardization, 1082
    wax test, 1082
  characterization of
    farnesol in, 1080, 1081
    isolation, 1080
    in plants, 1081
    structure of, 1081
  effects of
    and analog application method, 1094
    on behavior, 1097
    critical periods in, 1093, 1094
    and developmental stages, 1093
  functions of, 1060
  mode of action of, 1096, 1097
  as pesticides, 1098
  secretion of, 1080
  synthesis of, 1081
Juvenile hormone analogs
  activity of, and structure
    branching effect, 1088, 1089
    data, 1086, 1087
    double bond effect, 1089
    functional group role, 1090, 1091
    and isomerism, 1092
    and lipophilic properties, 1091, 1092
    and ring structures, 1092
    size effect, 1088
    species specificity, 1096
    substituent effect, 1089, 1090
  acyclic terpenes, 1084, 1085, 1088-90
  aliphatic sesquiterpenes, 1084, 1088
  aromatic terpenoid, 1081, 1084, 1085, 1087, 1089, 1090, 1091

assay of
data, 1086, 1087
by embryonic development, 1083
morphological, 1082
and ovarian development, 1083, 1095
score systems, 1083
standarization of, 1082
wax test, 1082
cecropia type, 1084, 1085, 1088, 1091, 1095
effects of
on adult diapause, 1095
and application method, 1095, 1096
on behavior, 1097
critical periods for, 1093, 1094
and developmental stages, 1093
duration of, 1093, 1094
and endogenous hormone, 1094
on insect groups, 1097
on metabolism, 1096
and pesticides, 1098
on reproduction, 1095
species specificity, 1096
juvabione, 1081, 1084, 1085, 1090-92
and membrane permeability, 1096-97
mode of action of, 1096, 1097
nonterpenic, 1087, 1088
peptide, 1081, 1082, 1087, 1091, 1092
as pesticide, 1098
sesquiterpenoid, 1081, 1084, 1089, 1092
structures of
acyclic terpenes, 1084, 1085, 1088-90
aromatic terpenoids, 1084, 1085, 1087, 1089-91
cecropia type, 1084, 1085, 1088-91
farnesol in, 1084
juvabione type, 1084, 1085
nonterpenic, 1087, 1088
peptidic, 1087
variety of, 1079, 1080

K

Kanamycin, 703-7
Kanchanomycin
action of, 804, 805
and DNA synthesis, 803, 804
and RNA synthesis, 803, 804
Kasugamycin, 703-7
Kerasine, 62
2-Keto-3-deoxyoctonate, 32
Ketone bodies, 582
Kinetoplasts, 918
Klebsiella aerogenes
capsular polysaccharide of
adhesion of, 33
structure of, 33, 34

L

Lac operon, 730, 731
Lactic dehydrogenase
affinity chromatography of, 265
analysis of, 581, 593
conformation of, 683, 684
dissociation of, 676
energy transfer in, 107, 108
fluorescence of, 331
isoenzymes of, 331
mechanism of, 331, 332, 1038
NAD binding by, 634
NADH dissociation from, 329, 331, 332
regulation of, 366
structure of
sequence, 1037, 1038
subunit of, 1036, 1037
by X-ray crystallography, 1035, 1036, 1038
substrate binding by, 1020, 1035, 1036, 1038
ternary complex of, 684
and vitamin D, 520, 521
X-ray crystallography of, 683, 684
β-Lactoglobulin
amino acid analysis of, 15
association of, 656
forms of, 339
Lactose synthetase, 671
Lactulose analysis, 582
Lead analysis, 578
Lesch-Nyhan syndrome
and allopurinol, 817, 818
and azathioprine, 818
hypoxanthine excretion in, 816, 817
and hypoxanthine-guanine phosphoribosyltransferase, 593, 816, 817
prenatal diagnosis of, 817
PRPP amidotransferase in, 816
PRPP levels in, 816
Leucine aminopeptidase, 593
Leucyl-tRNA synthetase
action of, 363
molecular weight of, 674
regulation of, 346, 363, 364
Light scattering
of albumin, 19
of mitochondria, 243, 244
and protein association
data analysis, 656
rate constant determination, 658
stopped-flow apparatus in, 658
Lincomycin, 703, 705-8
Lipase
cyclic AMP effect, 759
regulation of, 357
Lipid A
2-keto-3-deoxyoctonate linkage, 32
in lipopolysaccharides, 31, 32
Lipid analysis, 582, 583
Lipolysis
control of, 491, 492
and cyclic AMP, 758, 759, 761
norepinephrine effect, 146
Lipopolysaccharides
biosynthesis of
O antigen, 30, 31
T1 antigen, 31
phospholipid-protein complex of
composition of, 37
formation of, 36, 37
proteins of, 37-39
separation of, 35, 36
structure of
O antigens, 30, 31
generalized, 30, 31
heterogeneity in, 33
inner core, 31-33
outer core, 30, 31
Lipoprotein analysis, 582
Lithium analysis, 578
Liver alcohol dehydrogenase
see Alcohol dehydrogenase
Luteinizing hormone
adenyl cyclase stimulation by, 744, 745
and steroidogenesis, 760
Luteoskyrin
DNA binding by, 802, 803
and RNA polymerase, 802, 803
structure of, 801, 802
Lyon hypothesis, 817
Lysogeny
cI protein role
DNA binding, 837, 838
models of, 841, 842
and N protein, 832, 833, 840

as repressor, 831-34, 837-40
self-regulation, 831, 832, 840, 841
and sequential regulation, 837
definition of, 828
lysis in
cI protein in, 831-33, 836, 837
induction of, 829, 833, 834
negative regulation of, 830-34
positive regulation of, 829
proteins in, 830, 831, 834-37
stages of, 829
lysogenic cycle
establishment of, 828, 829
lysis, 829
maintainence of, 829
stages of, 828, 829
negative regulation in
establishment of, 832, 833
maintenance of, 830, 831
proteins in, 834, 835
release of, 833, 834
positive regulation in, 829, 830
principles of, 834, 835
prophage in
action of, 828
and bacteriophage λ, 829
and curing, 845
induction of, 828
sequential regulation of, 837
site-specific regulation in
excision in, 845-50
and heteroduplex mapping, 848, 850
integration in, 842-45, 849, 850
int protein role, 844, 845, 847
model of, 842, 843, 845
nature of, 848-50
requirements for, 846-49
xis protein role, 846, 848, 849
Lysosomes
energy release from, 508-10
marker enzymes in, 382, 390
Lysozyme
association of, 656, 665
conformation of, 326, 617, 618
denaturation of, 617, 618
energy transfer in, 101, 106
exposure calculations of, 1015-17
fluorescence of, 99, 108, 326
mechanism of, 326
nuclear magnetic resonance of, 615-18, 626, 627
pk values of, 1016
substrate binding by
and conformation, 1020
enthalpy of, 1014, 1015
nonproductive, 1021
synthesis of, 440, 441

M

Macrolides, 703, 705-8
Magnesium
analysis of, 578, 593
as nutrient, 556, 561, 565, 567
Malformin, 458, 459
Malic dehydrogenase, 679
Mannans
biosynthesis of
lipid involvement, 40
in yeast, 39, 40
immunochemistry of, 39, 40
protein linkage, 40
structure of, 39
α-Mannosidase, 39
Mass spectrometry
in lipid analysis, 59, 60
of nucleosides, 1049, 1050
Melanocyte stimulating hormone, 745
Melanosomes, 390
Melatonin, 492
Membranes
adenyl cyclase in
activation of, 734-45
and hormonal discriminators, 759
localization of, 743
receptors for, 744, 745
artificial
properties of, 250
and vitamin A, 509
in chloroplasts
assembly of, 180-86
chlorophyll in, 174-78
fracturing of, 163, 164
ion movements across, 247
layers in, 168-71, 175
lipids in, 169, 173
model of, 163, 165, 168, 171-74
particles within, 164-66
surface of, 166, 167, 171, 172
thickness of, 172, 173
thylakoid, 161-86
and chromosomes, 883
and DNA synthesis
attachment sites, 884, 925, 926
in DNA polymerase mutants, 872
growing point complex, 884
glycosphingolipids in, 74, 75
mitochondrial
allosterism in, 125
calcium transport by, 137, 138
cardiolipin in, 123
conformation of, 149, 150
and enzyme localization, 119-21
ion transport across, 134-42
membrane potential of, 142
and NADH dehydrogenase, 122, 123
oscillations in, 245
oxalacetate permeability of, 118
reducing equivalents, transfer of, 116-19
volume of, 150
nisin in, 457
nuclear magnetic resonance of, 627, 628
permeability of
to actinomycin, 777, 778
to amino acids, 764
to calcium, 763, 764
cyclic AMP effect, 762-65
and juvenile hormone, 1096
to potassium, 763
to sodium, 763
to water, 762, 763
potentials across, 247
of Sindibis virus, 51
and vitamin A
artifical membranes, 509
and fusion, 510
and lysosomal enzyme release, 508-10
specificity of, 509, 510
Mercaptalbumin
light scattering of, 20
purification of, 19
Mercury analysis, 578, 579
Messenger RNA
hemoglobin
in initiation, 415, 420
nucleotide sequences in

at initiation sites, 417, 418
secondary structure of, 418
terminal, 417
untranslated, 418, 438
purification of, 273
recognition of, 415
release of, 436
ribosome binding of, 412-15, 702
translocation of, 430
tryptophan operon specific measurement of, 953
and repression, 953
Metachromatic leucodystrophy, 62, 73, 593
Methionine synthetase, 367
Methionyl-tRNA synthetase, 674
Methionyl-tRNA transformylase, 411, 420, 421
Methylation
of chloroplast DNA, 187
of histones, 285, 289, 292, 293
of tRNA
chemical, 1054
in vitro, 1050
methylases, 1050, 1051
role of, 1051
in tumor tissues, 1051
Methyl lysine
in histone III, 289
in histone IV, 281, 284, 285
M factor, 729, 730
Micrococcal nuclease
see Staphylococcal nuclease
Micrococcus luteus
DNA polymerase of
initiation by, 864
nuclease activity of, 859
properties of, 863, 864
Micrococcus lysodeikticus
cell envelope of, 35
plasmids in, 914
Microtubules
see Neurotubules
Mithramycin
DNA binding by, 788
structure of, 787
Mitochondria
adenyl cyclase in, 743
ATP in, 127, 128
in brown fat
and ATP levels, 146, 147
phosphorylation in, 145, 146
thermogenesis in, 145-47
and uncoupling agents, 146, 147
calcium transport by
and calcium binding, 137, 138
carrier for, 138
energy for, 137
inhibition of, 138
coupling factors in
and ATPase inhibitor, 131
isolation of, 131, 132
and photophosphorylation, 132
defective, 917
DNA of
catenated, 917
and chloroplast DNA, 187
circularity of, 916-18
copies of, 923
function of, 916
oligomeric, 917
purification of, 905, 906
size of, 916
thermal denaturation of, 902
DNA polymerase of
inhibition of, 856
properties of, 867
electron transport in
antimycin effect on, 124-26
control of, 129
cytochrome b in, 124, 125
and NADH dehydrogenase, 121-24
nonheme iron protein in, 126
ubiquinone in, 124
energized states of
and ATP hydrolysis, 127
and oligomycin, 129
and respiratory control index, 128, 129
energy utilization by, 134-42
enzyme localization in
cytochromes, 120
α-glycerolphosphate dehydrogenase, 121
NADH dehydrogenases, 121
respiratory chain, 121, 390
and spatial orientation, 119
succinic dehydrogenase, 120, 390
fluorescence probes of
binding of, 149
and conformational changes, 149, 150
and energy condition, 148-50
and membrane volume, 150
formylmethionyl-tRNA in, 421
glycerolphosphate dehydrogenase in
and muscle type, 117
and reducing equivalent transfer, 117
inner cristae of, 120
ion transport in
of adenine nucleotides, 141
ammonium, 135
of anions, 138-40
avenaciolide effect, 139
butylmalonate effect, 139
calcium, 135, 137, 138
chloride, 136
and chloroplasts, 136, 137
dicarboxylate, 139
energy for, 137, 139, 140
exchange diffusion in, 139
inhibitors of, 139
kinetics of, 140
and membrane potentials, 142
and monensin A, 140
monovalent cations, 134-37
nigericin effect, 135, 136
oligomycin effect, 136
phosphate, 139
potassium, 135, 136
protons, 135-37
and submitochondrial particles, 134, 135
and sulfhydryl reagents, 139
valinomycin effect, 135, 136, 142
isocitrate dehydrogenase of, 668, 669
kinetoplasts of, 918
marker enzymes in, 390
membrane potentials in
and ATP synthesis, 142
valinomycin effect, 142
membranes of
allosterism in, 125
calcium transport by, 137, 138
cardiolipin in, 123
conformation of, 149, 150
and enzyme localization, 119-21
ion transport across, 134-42
membrane potential of, 142
and NADH dehydrogenase, 122, 123

and oscillations, 245
oxalacetate permeability of, 118
and reducing equivalents, transfer of, 116-19
volume of, 150
metabolic states of, 244, 245
monoamine oxidase in, 475, 477
NADH:NAD ratio of, 118
nucleotide translocation in
and bongkrekic acid, 141
exchange in, 141
inhibition of, 141
sites of, 141
time course of, 141
oscillations in
and energy coupling, 245, 247
ion fluxes, 238, 239, 243, 244
of light scattering, 243, 244
mechanism of, 245, 246
nature of, 244
quantitation of, 244
of redox carriers, 245
outer cristae of, 120
oxidative phosphorylation in
and ATP hydrolysis, 127
aurovertin effect, 129
control of, 128
crossover in, 128
and energy conservation, 127-29, 131-34
and fluorescence, 148-51
inhibition of, 129, 130
mechanism of, 116, 127, 132-34
models of, 132-34
reversibility of, 127, 128
uncoupling of, 143-45
permeability of, 778
phospholipids in, 173
prokaryotic nature of, 434, 435
protein kinase in, 357
protein synthesis in
elongation factors of, 434, 435
initiation of, 421, 434, 435
pyruvate dehydrogenase in, 355, 356
respiratory chain in
and antimycin, 124-26
components of, 122
cytochrome b in, 124, 125
cytochrome c oxidase in, 126
localization of, 121, 388
NADH dehydrogenase of, 121-24
ubiquinone in, 124
RNA synthesis in, 798
subparticles of
ASU particles, 131
electron transport in, 129
and ion transport, 134, 135
silicotungstate, 131
transaminases in, 118
transfer in
and α-glycerolphosphate cycle, 117
and β-hydroxybutyrate cycle, 117, 118
and malate-aspartate cycle, 118, 119
of oxalacetate, 118
of reducing equivalents, 116-19
and transaminases, 118
transformylase in, 421
tRNA in, 1047
Mitomycin
as alkylating agent, 793
and DNA repair, 873, 874
structure of, 793, 794
Mitosis inhibition, 795
Monensin A, 140
Monoamine oxidase
analysis of, 477, 581
distribution of, 475, 477, 479
in hypertension, 477
inhibition of, 477
properties of, 477
substrates of, 475-77
Mucopolysaccharides
structure of, 42, 43
sulfation of, 507, 508
Multienzyme complexes
acetyl coenzyme A carboxylase as, 663, 671
classes of, 671
study of, 671, 672
weak associations as, 672
see also Protein-protein interactions
Multiple sclerosis, 638
Muramidase, 581
Muscular dystrophy, 593
Mycobacillin, 452
Myelin
acidic proteolipid protein of, 636, 641
components of, 636
in development, 641
electrophoresis of, 636-38
encephalitogenic protein of
chemical modification of, 639-41
in development, 641
electrophoresis of, 636, 638
immunological properties, 638, 639
isolation of, 638
physical properties of, 638, 639
sequence of, 639, 640
enzymes of, 641, 642
isolation of, 636
proteolipid protein of
components of, 637
in development, 641
electrophoresis of, 636, 637
extraction of, 637
helix in, 637
Myoglobin
energy transfer in, 107
exposure calculations of, 1015
fluorescence of, 106
Myosin
association of, 657, 665
ATP interaction with, 338
conformation of, 103
early research on, 9, 10
fluorescence of, 103
subunits of, 674
sulfhydryl groups in, 10, 11
Myxovirus, 75

N

NAD
and alcohol dehydrogenase binding, 626, 628
base stacking in, 610
and DNA ligase, 875, 876
and glyceraldehyde phosphate dehydrogenase, 332, 333
and lactic dehydrogenase binding, 684
and NADP transhydrogenation, 127, 147, 148
nuclear magnetic resonance of, 610
and protein synthesis, 361, 433, 434
reduction of, 148
and retinal oxidase, 503
NADH
and alcohol dehydrogenase dissociation of, 327, 329, 330
fluorescence of, 328
mechanism of, 327-30
base stacking in, 610
in enzyme assays, 577
fluorescence of, 107, 108, 328, 329, 331

in glycolysis, 238, 240, 241, 243
and lactic dehydrogenase
dissociation of, 329, 332
fluorescence of, 331
mechanism of, 331, 332
nuclear magnetic resonance of, 610
oxidation of
and enzyme localization, 121
free energy of, 127, 128
α-glycerolphosphate cycle in, 117
β-hydroxybutyrate cycle in, 117, 118
malate-aspartate cycle in, 118, 119
and mitochondrial permeability, 116
and NADH dehydrogenase, 122-24
NADP reduction, 147, 148
by peroxisomes, 119
and ubiquinone, 124
standardization of, 576
NADH dehydrogenase
extramitochondrial, 124
functions of, 122
inhibition of, 123, 124
isolation of, 122, 123
localization of, 121
and piericidin A, 122-24
NADP
and ferredoxin-NADP oxidoreductase, 199, 201
and glutamic dehydrogenase, 334
NADH reduction of
energy source, 147
and oxidative phosphorylation, 147, 148
and NAD transhydrogenation, 127, 147, 148
photoreduction of, 180, 183, 199, 200, 203, 204, 208, 210
in photosynthesis
photosystems in, 198
reduction of, 180, 183, 199, 200, 203, 204, 208, 210
specificity of, 199
stereospecificity of, 200
in PRPP synthesis, 614
thio-NADP, 577
NADPH, 747
NADP-malate dehydrogenase, 367
NADP-NADH transhydrogenase
and ATP utilization, 147, 148
mechanism of, 148
stoichiometry of, 148
Nalidixic acid, 856
Neocarzinostatin, 450
Neomycin, 703-7
Nerve growth factor proteins
action of, 646, 647
distribution of, 644
in snake venom, 646
subunits of
activity of, 644-46
complexes of, 645
and esteropeptidase, 646
immunological properties, 645
and neurite growth, 645
Nervon, 62
Neuraminidase, 47
Neuronal proteins, 647, 648
Neurotubules
and colchicine binding, 642-44
growth of, 642
protein of
aggregation of, 644
colchicine binding, 642-44
in development, 644
GTP binding, 643, 644
and vinblastine, 643, 644
transport, role in, 486, 487
and vinblastine, 643, 644
Nickel analysis, 579
Nieman-Pick disease, 72, 593
Nigericin
and ion transport, 135, 136
and oxidative phosphorylation, 135
Nisin
association of, 450
biosynthesis of, 456, 457
and cell organization, 452, 457
and control, 457
molecular weight, 450, 456
structure of, 456
Nitrogen analysis, 579
Nogalamycin
DNA binding by, 790
and RNA synthesis, 790, 791
Nonactin
conformation of, 613
nuclear magnetic resonance of, 613
Noradrenaline
biosynthesis of, 468, 479, 488, 491
in chromaffin granules, 481
and enzyme activation, 492
inactivation of, 479, 480
localization of, 465, 466
and melatonin synthesis, 492
metabolism of
catechol-O-methyltransferase in, 476, 478
inactivation, 480
monoamine oxidase in, 476, 477, 485
pathway of, 476, 479
synthesis, 468, 479, 488, 491
urinary product, 475
as neurotransmitter, 466
regulation of
drug effect on, 490
mechanisms of, 487
tyrosine hydroxylase role, 488-91
release of, 482-84
storage of, 481, 482
transport of, 480, 481, 486, 487
turnover of, 484, 485
uptake of, 479-81
visualization of, 466
Norepinephrine
and adenyl cyclase stimulation, 744, 746
and lipolysis, 146
and phosphofructokinase activation, 147
Nuclear magnetic resonance
of acetylcholinesterase, 626
of actinomycin, 779
of alcohol dehydrogenase, 626, 628
of amino acids
conclusions from, 611, 612
methods, 611
analysis of
and isotope substitution, 608, 614-16
and sequence, 616
of antibodies, 625, 626
of aspartate transcarbamylase, 626
as biochemical tool
approaches, 608
instrumentation for, 608
and isotope substitution, 608
limitations, 607
requirements, 608
of carbonic anhydrase, 625
of carboxypeptidase, 623, 625
of ceramides, 63
of chymotrypsin, 625-27
definitions in, 606
of dinucleotides, 610

of DNA polymerase, 628, 629
and enzyme stereospecificity, 628
of gramicidin S, 612
of hemoglobin, 615, 619, 625, 680
of histones, 300, 301, 620
of homopolynucleotides, 611
instrumentation for, 608
ligand spectra in, 625-27
of lysozyme, 615-18, 626, 627
of membranes, 627, 628
of nucleic acids
and base stacking, 609
and hydrogen bonding, 609, 610
and intercalation, 610
with labeled derivatives, 610, 611
tRNA, 611, 623, 1053
of nucleosides, 609-11
of nucleotides, 609-11
parameters measured, 606
of peptides, 612, 613
of polypeptides
double peaks in, 613, 614
and helix formation, 613
side-chain peaks, 614
probe experiments in
and ligand spectra, 625-27
nature of, 621, 622
proton relaxation enhancement, 622, 623
quadrupolar relaxation, 624, 625
and solvent shifts, 623, 624
of proteins
analysis rules, 614-17
binding sites of, 620
and chemical modification, 616
and denaturation, 617, 618, 624
and enzyme stereospecificity, 628
histidines in, 615-17
and hydration, 623, 624
and isotope substitution, 614-16
and ligands, 625-27
and metal binding, 622, 623
mutant, 616
and nuclear spin labeling, 627
peptide bond effect, 612
and quadrupolar relaxation probes, 624, 625
and sequence, 616, 617
and proton relaxation enhancement
basis of, 622, 623
and metal binding, 622, 623
of substrates, 623
of pyruvate kinase, 622, 623, 625
quadrupolar relaxation probes in, 624, 625
of ribonuclease, 615-18, 620, 628
of serum albumin, 625, 626
and solvent shifts, 623, 624
and spin labeling, 628
of staphylococcal nuclease, 615, 616, 618, 620, 621
theory of
and interpretation, 606-9
parameters measured, 606
of tRNA, 611, 623, 1053
Nuclease T
active site of, 1034
in affinity chromatography, 272
formation of, 272
see also Staphylococcal nuclease
Nucleic acids
in affinity chromatography, 273, 274
nuclear magnetic resonance of, 609-11, 623, 1053
see also DNA, RNA
5'-Nucleotidase
analysis of, 581, 593
role of, 812, 821, 822
Nutritional methodology
commercial diets in, 566, 567
experimental conditions
coprophagy, 551
description, 551
diet description, 552
documentation of, 553
standards, 551
micronutrients in
minerals, 555-57, 559-62, 565
ommissions of, 555, 556
vitamins, 555-59, 568
zinc, 562, 563
nutritional design
commerical stock diets in, 553, 554
defined diets, 554, 555
requirements
methods, 564, 566
standards of, 564, 568

O

Octopamine, 468, 477, 482
Old yellow enzyme, 335
Oligomycin
and mitochondria, 129, 130, 146, 147, 149
and mitochondrial fluorescence, 149
and respiratory control, 120, 121, 136
Olivomycin
DNA binding by, 788
structure of, 787
Optical rotatory dispersion
of actinomycin, 779
of histones, 300, 302
of kanchanomycin, 803
of mitochondria, 245
of proteolipid protein, 637
of RNA polymerase, 722
Ornithine carbamoyl transferase, 581
Ornithine transaminase, 944
Ornithine transcarbamylase
and arginase
inhibition, 944
interaction of, 944, 945
oscillations in, 248
Oscillatory phenomena
in cells
chloroplasts of, 247
endogenous, 249
epigenic, 248, 249
membrane transport, 249, 250
metabolic, 247, 248
muscle, 249
nature of, 247
and synchronization, 247, 248
criteria for, 252-54
definitions in, 254
in evolution, 253, 254
in glycolysis, 238, 240-43
history, 237-39
in mitochondria
and coupling, 246
ion fluxes, 238, 239, 243, 244
and light scattering, 243-45
mechanism, 245, 246
of redox carriers, 245
models of
chemical, 250
general, 251, 252
mathematical, 251, 252
specific, 251
in photosynthesis, 238
significance of, 253
soluble
enzymes in, 239
glycolysis, 240-43
in peroxidase, 239
as synchronizing clock, 253
Ouabain, 743, 746

Ovomucoid, 96
Oxidative phosphorylation
coupling factors in
and ATPase inhibitor, 131
isolation of, 131, 132
and photophosphorylation, 132
source specificity of, 132
fluorescence probes of
ATP induction of, 149
uncoupler effect on, 149
inhibition of
by antimycin, 129
by aurovertin, 129, 130
by dicyclohexylcarbodiimide, 129, 130
by hydroxylamine, 130
by oligomycin, 129, 130
by trialkyltins, 130
mechanism of
analogies in, 116
and crossover, 128
and energy conservation, 127-29
models of, 132-34
transhydrogenase in, 147, 148
models of
and chemiosmotic hypothesis, 134
cytochrome b in, 134
and diimidazolyl ferrohemochrome, 133, 134
and glutathione oxidation, 133
site I phosphorylation
and electron paramagnetic resonance, 123, 124
and piericidin A, 123, 124
redox component at, 134
reversibility of, 127, 128
sulfur compounds in, 133
site II phosphorylation
and antimycin, 126
cytochrome b in, 126, 134
and energy conservation, 126
reversibility of, 127, 128
sulfur compounds in, 133
site III phosphorylation
cytochrome a_3 in, 134
and energy conservation, 126
reversibility of, 127, 128
sulfur compounds in, 133
uncoupling of
in brown adipose tissue, 145-47
conformational effects in, 144
and coupling enzymes, 144
electrical charge gradients, 143
mechanisms of, 143
nigericin effect, 135
stoichiometry of, 144, 145
uncoupler groups, 143
valinomycin effect, 135
by weak acids, 143, 144
and vitamin A, 507
Oxygen analysis, 579
Oxynervon, 62, 68
Oxytetracycline, 457
Oxytocin
and cyclic AMP synthesis, 745, 763
and membrane permeability, 763

P

Pactamycin
and methylation, 1050
and protein synthesis, 703-7
Palmityl coenzyme A synthetase, 357
Papain
affinity chromatography of, 266, 270
fluorescence of, 96, 97, 99
mechanism of, 324
X-ray crystallography of, 266
Parathyroid hormone
and adenyl cyclase, 745
energy transfer in, 96
Penicillamine, 460
Penicillin
biosynthesis of
in different genera, 451
precursors of, 460, 461
side chains of, 460
serum albumin binding of, 625, 626
structure of, 402
Penicillium chrysogenum, 460
Pepsin
energy transfer in, 99, 102, 103
fluorescence of, 96, 97
glass coupled, 262
Pepsinogen analysis, 582
Peptidases
antibiotics, action on, 451
in E. coli, 400, 401
extracellular, 397, 398
function of
and external peptides, 397, 398, 401
in nutrition, 401
protective, 401, 402
in protein synthesis, 402-4
in protein turnover, 403
intracellular, 401
localization of, 397, 398
occurrence of
in bacteria, 399, 400
in E. coli, 400, 401
in peptide transport, 397-99
regulation of
and latency, 403, 404
and protein synthesis, 404
see also Carboxypeptidase, Leucine aminopeptidase
Peptides
affinity chromatography of, 271-73, 1018
as amino acid source, 397, 398, 401
analysis of, 582, 586
antibiotic
actinomycin, 450, 453, 457, 458
amino acids of, 402, 451, 452
association of, 450
bacitracin, 450, 452, 453, 456
biosynthesis of, 451-61
cephalosporin, 460, 461
constituents of, 451
cyclic, 451
depsipeptides, 459, 460
edeine, 453, 456
gramicidin S, 453, 454
malformin, 458, 459
metal binding of, 451
nisin, 450, 456, 457
penicillin, 451, 460, 461
polymyxin, 455
size of, 450
stability of, 402, 451
tyrocidines, 450, 453-55
and bacterial growth
inhibitory, 401, 402
nutrition, 401
biosynthesis of
actinomycin, 453, 457, 458
D-amino acids of, 452
bacitracin, 456
cephalosporin, 460, 461
and chloramphenicol, 452
cyclization, 454
depsipeptides, 459, 460
edeine, 453, 456
gramicidin S, 453, 454
inhibition of, 454
initiation of, 454
malformin, 458, 459
nisin, 456, 457
penicillin, 460, 461

polymyxin, 455
and protein synthesis, 451-53, 455
study of, 452, 453
substitutions in, 450-52
tyrocidines, 453-55
as dipolar ions, 11, 12
energy transfer in
and aromatic amino acids, 92-94
and fluorescence, 93, 94
natural, 95, 96
fluorescence of, 92-94
hydrolysis of
in E. coli, 400, 401
function of, 401-3
localization of, 397, 398
and nutrition, 401
regulation of, 403, 404
in transport, 397-99
see also Peptidases
as juvenile hormone analogs, 1081, 1082, 1087, 1091, 1092
nuclear magnetic resonance of, 612, 613
permeases for, 398
Raman spectra of, 12, 13
regulatory, 402
transport of
dipeptides, 398, 399
and nutrition, 401
oligopeptides, 398, 399
and peptide permeases, 398, 399
protein role, 398
specificity in, 398, 399
as zwitterions, 11, 12
Peptidyltransferase
action of, 425, 428, 429
donor site of, 429
in eukaryotes, 432, 433
as hydrolase, 438
inhibition of, 427
isolation of, 429
specificity of, 429
in termination, 437, 438
Permeases
amino acid
characteristics of, 398, 399
specificity of, 398
peptide, 398, 399
Peroxidase
antibody labeling with, 391, 392
as antigen, 391
fluorescence of, 106
localization of, 386
oscillations in, 239
Peroxisomes
and gluconeogenesis, 119
marker enzymes in, 390
and NADH oxidation, 119
Pesticides
juvenile hormone analogs as, 1098
Phenylalanine deaminase, 365
Phenylethanolamine-N-methyltransferase
assay of, 474
inhibition of, 473, 474
localization of, 474
regulation of, 490, 491
role of, 473
specificity of, 474
Pheromones
aggregating, 540
alarm
as irritant, 535
production of, 535
release of, 535
specificity of, 543, 544
structure, 538
classification, 534
definition of, 533
distribution of, 534
environmental factors, 545
exploitation of, 545
functions of, 534
interactions of, 544, 545
production of
in insects, 534, 535
in mammals, 535
reception of
in insect antennae, 542
models of, 541, 542
olfactory, 542
reactions in, 542, 543
recruiting, 539
release of, 535
sensitivity to, 543
sex
production of, 534, 535
release of, 534, 535
species dependence, 544
specificity of, 543, 544
structure of, 536, 537
specificity of, 543, 544
structures, 534, 536, 537, 539, 540
Phleomycin
DNA binding by, 298, 795
and DNA polymerase, 795, 856
and DNA synthesis, 795
nature of, 795, 796
and RNA synthesis, 796
Phosphate analysis, 578, 579
Phosphatidylethanolamine, 36, 37
Phosphatidylinositol, 638
Phosphatidylserine, 638
Phosphoadenylsulfate, 508
Phosphoenolpyruvate carboxykinase, 753
Phosphoenolpyruvate carboxylase
activation of, 367
association of, 665
Phosphoenolpyruvate synthetase, 367
Phosphofructokinase
activation of
and ATP inhibition, 756, 757
cyclic AMP effect, 147, 756, 757, 765
and subunit aggregation, 757, 765
association of, 657, 662, 665, 669
in fructose diphosphatase activation, 672
in glycolysis
allosterism, 242, 243, 756, 757
as control point, 241-43
model, role of, 251
modification of, 366
subunits of, 670
Phospholipase C, 61
Phospholipid analysis, 583
Phosphomannan, 40
Phosphoribulokinase, 189, 190
Phosphorylase
see Glycogen phosphorylase
Phosphorylase kinase
action of, 348-51
activation of, 348, 350, 351
and cyclic AMP, 750, 755
purification of, 350, 353
regulation of, 346-48, 350, 354, 755
Phosphorylase kinase kinase
and cyclic AMP, 348, 354, 755
histone phosphorylation by, 294
and phosphorylase kinase, 348, 350
see also Protein kinase
Phosphorylase kinase phosphatase, 350, 756
Phosphorylase phosphatase
action of, 348, 349
activation of, 351, 352
glucose, effect on, 352
regulation of, 347, 348, 351, 352
specificity of, 351
Phosphorylation
of fructose diphosphatase, 346, 356
of glycogen phosphorylase,

345-52, 354, 355
of glycogen synthetase, 346-48, 352-55
of histones, 293-96, 364, 365
of lipase, 357
of neurotubule protein, 544
of palmityl coenzyme A synthetase, 357
of pyruvate dehydrogenase, 346, 355, 356
Photophosphorylation
coupling factor for, 166
and oxidative phosphorylation, 132
Photosynthesis
chlorophyll II in, 219, 220
electron transport in
and chlorophyll II, 219, 220
components of, 199-221
and cytochrome reducing substance, 203-5
cytochromes in, 209-13
ferredoxin in, 198, 200-3
and ferredoxin reducing substance, 204, 205
and manganese, 220, 221
and NADP, 198-200
and photosystems, 198-221
pigment 700 role, 205-7
and plastid quinones, 213-17
plastocyanin in, 207-9
and substance Q, 217-19
genes involved, 189, 190
light reactions in
and NADP reduction, 199, 200
number of, 198-200
quantum yield in, 199, 200
manganese in, 220, 221
model of, 251
oscillatory transients in, 238
oxygen evolution in, 220, 221
photochemical systems in
electron flow between, 204, 208, 211-15
photosystem I, 198, 199, 202-6, 208, 210-19
photosystem II, 198-200, 204, 208, 210-20
photosystem I in
cyclic phosphorylation in, 198
cytochrome b_6 in, 211, 212
and NADP reduction, 199, 200, 210
plastocyanin role, 208
plastoquinone in, 214, 215
purification of, 206, 210
reductant in, 202, 203
role of, 198
vitamin K in, 217
photosystem II in
chlorophyll II in, 219, 220
electron spin resonance of, 216
electron transfer in, 198
manganese in, 220, 221
and NADP reduction, 199, 200
plastocyanin role, 208
plastoquinone in, 214, 215
purification of, 210
role of, 198
substance Q in, 217-19
plastocyanin in
and electron transport, 207, 208
function of, 199, 208
plastoquinone in
absorbancy changes in, 215, 216
concentration in chloroplast, 214
role of, 199, 214, 215
thylakoid role, 178-80
α-tocopherolquinone in, 217
vitamin K in, 217
see also Chloroplasts, Thylakoid membrane
Phycocyanin, 107
Phytoglycosphingolipids, 65
Phytosphingosine, 60, 61
Piericidin A
and NADH dehydrogenase, 122-24
site of action, 123, 124
Pigment 700
localization of, 210
mutations in, 207
nature of, 206
protein of, 207
purification of, 206
role of, 199
Plasma fractionation, 18, 19
Plasmalogens, 67
Plasma membranes
marker enzymes in, 390
Plasminogen, 271
Plastid quinones
in plants, 213
plastoquinone
and photosynthesis, 214-17
variety of, 216
α-tocopherolquinone, 217
vitamin K, 217
Plastocyanin
and cytochrome f, 208
and electron transport, 207-9
and photosynthesis, 207, 208, 211
Plastoquinone
in photosynthesis
concentration of, 214
localization of, 215
role of, 214, 215
Pluramycin, 791
Polyacrylamide gel electrophoresis
of calcium binding protein, 523
of histones, 282, 283
and molecular weight determination, 673
of RNA polymerase, 713, 714, 716
in sodium dodecyl sulfate, 673
Polylysine, 298
Polymyxin
biosynthesis of, 455
in cell organization, 452
fluorescence of, 96
structure of, 450
Polynucleotide kinase, 869
Polynucleotide phosphorylase, 713
Polyoma virus
cell transformation by, 49-51, 75
DNA of
circular, 901, 902, 914
replication of, 914
supercoiled, 902, 914
transformation by, 915
Polyphosphate kinase, 713
Potassium
analysis of, 579
transport of, 135, 136, 243, 244, 763
PR-ATP synthetase
and feedback, 954
and repression, 954, 955
tRNA affinity of, 955
Prednisolone, 352
Pregnanolone, 583
Progesterone, 505, 506
Proline reductase, 675
Prostaglandins
and adenyl cyclase activation, 744, 746
and steroidogenesis, 760
Protamines
biosynthesis of, 280, 422
and histone displacement, 295, 296

phosphorylation of, 294-96
and RNA synthesis, 305, 306
sequence studies, 280
Proteases
affinity chromatography of, 266
antibiotics, action on, 451
extracellular, 404, 405
and histones, 299, 300
intracellular
and cyclic degradation, 403, 405
regulation of, 405
role of, 405, 406
and nutrition, 405, 406
and sporulation, 405
ω Protein
action of, 880
function of, 905
and phosphodiester breakage, 880, 881
specificity of, 880
Protein kinase
in brain, 644
and cyclic AMP assay, 748
cyclic AMP effect, 755, 757, 758
dissociation of, 758
in mitochondria, 357
sources of, 757, 758
specificity of, 755-58
see also Histone kinase, Histones, Phosphorylase kinase kinase
Protein-protein interactions
and affinity chromatography, 271-75
antibodies in, 658, 659
in enzymes
acetyl-coenzyme A carboxylase, 659, 662, 663, 666, 671, 677, 688
aldolase, 672, 676, 678
D-amino acid oxidase, 664, 666
aspartic β-decarboxylase, 662, 664
chymotrypsin, 656, 664
consequences of, 659-62
fructose diphosphatase, 672
glutamic dehydrogenase, 656, 664, 666-68, 679, 686
glyceraldehyde phosphate dehydrogenase, 672, 676, 678
glycogen phosphorylase, 662, 665, 670, 671, 674, 688
homoserine dehydrogenase, 662, 665, 675, 688
isocitric dehydrogenase, 664, 668, 669, 675
β-lactoglobulin, 656
lysozyme, 656, 665
methods in, 655-58
phosphofructokinase, 657, 662, 665, 669, 670, 672
polymerization, 654, 655
rate constants, 658, 659
and subunits, 654, 655, 672-89
threonine deaminase, 662, 665, 675, 688
threonine dehydrase, 658
triose phosphate isomerase, 672
tryptophanase, 662, 665
tryptophan synthetase, 662, 665, 671, 678
types of, 654
in hysteretic enzymes, 687
in multienzymic complexes
classes of, 671
study of, 671, 672
weak associations as, 671, 672
polymerization
consequences of, 659-62
and control, 662, 664, 665
data analysis, 655-58
in enzymes, 662, 663, 666-71
and ligand binding, 660, 661, 668
light scattering in, 655, 656, 658
mass transport methods in, 657, 658
nature of, 654, 655
physical methods in, 655-58
polarization fluorescence, 656
rate constants, 658, 659
and subunit interactions, 662
viscometry in, 656
and subunits
and allosterism, 685-87
binding sites of, 674, 675
in cold-labile enzymes, 676, 677
dissociation of, 675
and function, 677-79
in hemoglobin, 673, 674, 680-82
and hybrid formation, 677-79
and modification, 678, 679
molecular weight determination, 673, 674
number of, 674
reassociation of, 675, 676
and X-ray crystallography, 682-85
types of, 654
Proteins
amino acid analysis of, 15
analysis of, 583
cyclol theory of, 14
structure of, 14, 15
synthesis of
see Protein synthesis
turnover of, 403
see also specific proteins
Protein synthesis
and antibiotic synthesis, 451-53, 455
and catecholamines, 754
chemical
of ribonuclease, 1017
value of, 1017
and chlorophyll synthesis, 177
and chloroplasts, 185, 186
cyclic AMP effect on
and catabolite repression, 752, 753
and hydrocortisone, 761
and steroidogenesis, 760, 761
and transcription, 752, 753
and translation, 753, 754
and cyclic GMP, 754
diphtheria toxin, effect on, 361, 703
and DNA replication, 927, 928
elongation in
and aminoacyl-tRNA binding, 425-28, 432, 706, 707
in bacteria, 424-31
diagram of, 698
in eukaryotes, 431
and G factor, 425, 426, 429-31, 435, 754
and GTPase, 425-27, 431-33, 706, 707
GTP role, 426, 427, 430-34
inhibition of, 702, 704, 706-9
peptidyltransferase role, 425, 427-29, 432, 433
protein factors in, 425
steps in, 424, 425, 698, 699
and T factors, 425-28, 435

translocation, 430, 698, 706, 707
elongation factors in
in eukaryotes, 431-35
function of, 426-35
G factor, 425, 426, 429-31, 435, 754
and GTPase, 425, 427, 431-33
in mitochondria, 434, 435
nomenclature of, 425
peptidyltransferase, 425, 427-29, 432, 433
T1, 431, 432, 435
T2, 431-35
T_s, 425, 426, 428
T_u, 425-28
of enzymes, in vitro
β-galactosidase, 440
T4 lysozyme, 440
N-formylmethionine in, 402, 403, 411-15, 434, 435, 698, 706, 707
G factor in, 754
glucocorticoid effect on, 761, 762
of glycoproteins
glycosidic links of, 43-47
ribosomes in, 45
and histone phosphorylation, 294
hormone effect on, 489
inhibition of
by aminohexose pyrimidines, 703, 707
by aminopterin, 420, 421
by anisomycin, 705-8
by aurintricarboxylic acid, 702, 703, 705-7
by chloramphenicol, 36, 437, 703, 705-8
by chlortetracycline, 427, 703
and complex excretion, 36
by cyclic AMP, 754
by cycloheximide, 434, 703, 705-7
by diphtheria toxin, 433, 434, 703
by edeine, 703-7
by fusidic acid, 414, 430, 701, 703
by glutarimides, 703, 706, 707, 709
by ipecac alkaloids, 703, 705-7, 709
by kanamycin, 703-7
by kasugamycin, 703-7
by lincomycin, 703, 705-8
by macrolides, 703, 705-8
by neomycin, 703-7
by pactamycin, 703-7
by puromycin, 422, 423, 428-30, 703, 705-7
by sparsomycin, 422, 427, 437, 703, 705-8
by spectinomycin, 703-7
by streptogramins, 701, 703, 705-9
by streptomycin, 702, 703, 705-7
by tetracyclines, 703-7
by thiostreptons, 701, 703, 705-7, 709
initiation of
with acetylphenylalanyl tRNA, 415
complex formation, 412, 413
control of, 419, 420
diagram of, 698
and dissociating factor, 416
in eukaryotes, 420-24, 434, 435
factors in, 410
formylmethionyl tRNA in, 411-15, 420, 421, 434, 435, 698, 706, 707, 1047
GTP role, 414, 424
importance of, 410
inhibition of, 704, 706, 707, 709
initiation factors in, 412-15, 423, 424
methionine in, 411, 417, 421, 422, 434, 435
methionyl tRNA in, 420-23, 434, 435
nucleotide sequence for, 417, 418
and peptide formylase, 417
in prokaryotes, 411-20
ribosomal subunits in, 412-15, 420, 703
specificity of, 417-19
and T4 infection, 419, 420
initiation complex in
in eukaryotes, 424
GTP in, 414, 424
and initiation factors, 413-15
nature of, 412
as obligatory step, 412
initiation factors in
and dissociating factor, 416
F1, 413-16
F2, 413-15, 419
F3, 413, 415, 416, 419
function of, 413-16, 423, 424
GTP, 414, 424
GTPase activity in, 414
localization of, 415
M1, 423, 424
M2, 423, 424
M3, 423, 424
mammalian, 423, 424
nomenclature of, 412, 413
properties of, 413
release of, 413
and T4 infection, 420
NAD effect, 361
and oscillations, 248
peptidases in, 402-4
peptidyltransferase in, 425, 427-29, 432, 433, 437, 438
phases in, 410
ribosomes in
protective role of, 404
states of, 697-705
see also Ribosomes
and steroidogenesis, 760, 761
termination of
codons for, 435-39
diagram of, 699
in eukaryotes, 440
inhibition of, 706, 707
peptidyltransferase role, 437, 438
and polypeptide release, 436, 437
in prokaryotes, 435-40
release factors in, 436, 437, 439, 440
and termination factors, 439, 440
vitamin A in
deficiency of, 510, 511
and glycoproteins, 511
Proteolipid protein
components of, 637
in development, 641
electrophoresis of, 636, 637
extraction of, 637
helix in, 637
as myelin component, 636, 637
PRPP
in gout, 818
supply of, 814, 819
synthesis of
reaction of, 812, 813
regulation of, 812-14
PRPP amidotransferase
azathioprine effect, 816
in Lesch-Nyhan syndrome, 816
localization of, 815
PRPP affinity, 819
regulation of, 812, 818, 819

PRPP synthetase
regulation of, 812-14
requirements of, 822
Pseudocholinesterase analysis, 581
Pseudorabies virus, 52
Psi factor
function of, 731
and ribosomal RNA synthesis, 731
Psychosine biosynthesis, 69
Purine salvage
and de novo synthesis
balance of, 818, 819
in gout, 818
in Lesch-Nyhan syndrome, 861, 817
enzymes of
inosine kinase, 813
interrelationships of, 812
and PRPP synthesis, 813, 814
and urinary adenine, 812, 813
PRPP in
level of, 814, 822
as rate-limiting factor, 814, 822
synthesis of, 813, 814
quantitative aspects
in bone marrow, 815
in children, 814
and de novo synthesis, 815, 816, 819
and exercise, 815
liver role, 815
source of purines
external, 820
liver, 815, 820, 821
nature of, 821, 822
ribonuclease role, 820
transport in
form of, 821, 822
and nucleotide turnover, 820
and red blood cells, 819-21
source of purines, 820-22
Puromycin
action of, 422, 423, 703, 705-7
and cyclic AMP diesterase, 747
and nisin synthesis, 457
and polymyxin synthesis, 455
and protein synthesis
action of, 422, 423, 428, 703, 705-7
and elongation, 428-30, 706, 707
and initiation, 422, 423
Pyridoxal phosphate
and aspartic β-decarboxylase, 664
in dopa decarboxylase, 471
and enzyme association, 662
fluorescence of, 109
and glycogen phosphorylase, 349
and threonine deaminase, 675
and tryptophan synthetase, 662, 678
Pyrophosphatase, 264
Pyrromycins, 789
Pyruvate carboxylase
cold lability of, 677
dissociation of, 677
nuclear magnetic resonance of, 623
Pyruvate decarboxylase, 242
Pyruvate dehydrogenase
in E. coli, 356
mammalian, 346, 355, 356
and nutrition, 356
phosphorylation of, 346, 355, 356
regulation of, 346, 355, 356, 944
Pyruvate formate lyase
activation of, 346, 362, 363
Pyruvate kinase
cyclic AMP effect, 757
in glycolysis
allosterism, 242
as control point, 241, 242
nuclear magnetic resonance, 622, 623, 625
reassociation of, 676

Q

Quantasomes, 163, 166

R

Raman spectra, 12, 13
Rapid reaction techniques
flow methods in
apparatus for, 316-18
computers in, 318
fluorescence in, 317
and heat measurements, 317
quenching in, 318
time resolution of, 316, 317
in metabolic studies, 339, 340
relaxation methods
electrical field jump, 318
and flavoproteins, 335
and hemeproteins, 335-37
and hydrolytic enzymes, 324-27
interpretation of, 322-24
and NAD-linked dehydrogenases, 327-35
pressure jump, 318
temperature jump, 318, 319
theory of, 322, 323
transient kinetics in
and flavoproteins, 335
and hemeproteins, 335-37
and hydrolytic enzymes, 324-27
interpretations of, 320, 321
and NAD-linked dehydrogenases, 327-35
and nonenzymic reactions, 339, 340
and proteolytic enzymes, 324
value of, 315, 316
Rauscher mouse leukemia virus, 868
Recombination
deoxyribonuclease role, 859
site specific
excision in, 845-48
and heteroduplex mapping, 848, 850
in integration, 829
integration in, 842-45
int protein role, 844, 845, 847, 848
model of, 842, 843, 845
nature of, 848-50
requirements for, 846-49
xis protein role, 844, 846, 848, 849
Regulation
of adenyl cyclase
activation, 743-46, 758, 759
and allosterism, 743
hormonal response, 743-45, 759
see also Cyclic AMP, specific hormones
allosteric
see Allosterism
of aminoacyltransferase II, 346, 361, 362
and aminoacyl-tRNA-protein transferases, 364
and aminoacyl-tRNA synthetases
analog studies, 959
and pathway-specific enzymes, 956-58
in repression, 956-58, 1061, 1062

as repressors, 958-60
amplification of, 368, 369
of anthranilate synthesis
by repression, 953
and translation control, 953, 954
of aspartokinase, 361
catabolite repression, 752, 753
and catalysis, 943, 944
by chemical modification
of aminoacyltransferase II, 346, 361, 362
and aminoacyl-tRNA-protein transferases, 364
characteristics of, 367-69
definition of, 346, 347
energy requirements, 368
of fructose 1,6-diphosphatase, 346, 356, 357, 366
of glutamine synthetase, 346, 357-61
of glycogen metabolism, 345-55
of glycogen phosphorylase, 345-52, 354, 355
of glycogen synthetase, 346-48, 352-55
of glycogen synthetase kinase, 348, 355
of glycogen synthetase phosphatase, 348, 353
of histones, 362, 364, 365
in intact cells, 365, 366
of leucyl-tRNA synthetase, 346, 363, 364
of lipase, 357
mechanisms of, 345, 346, 348
of palmityl coenzyme A synthetase, 357
of phosphorylase kinase, 346-48, 350, 354
of phosphorylase phosphatase, 347, 348, 351, 352
of pyruvate dehydrogenase, 346, 355, 356
of pyruvate formate lyase, 346, 362, 363
xanthine oxidase, 346, 363
of cyclic AMP diesterase, 747, 748
cyclic AMP role
and enzyme activity, 755-58
and lipolysis, 758, 759, 761
and membrane permeability, 762-65
and messenger translation, 753, 754
models of, 765, 766
and protein kinase, 748, 755, 757, 758
and protein synthesis, 752-54
in steroidogenesis, 754, 760, 761
and transcription, 752, 753
energy requirements for, 368
and enzyme association, 662, 664, 665, 671
by enzyme-form interconversion, 367, 368
feedback
of PRPP amidotransferase, 818, 819
of PRPP synthetase, 813, 814
of fructose 1,6-diphosphatase, 346, 356, 357, 366
functional sites of, 368
of glutamine synthetase
by adenylylation, 346, 358-61
forms of, 346, 358, 359
of glycogen degradation, 347-52, 354, 355
of glycogen metabolism
and glycogen phosphorylase, 755, 756
and glycogen synthetase, 756
of glycogen phosphorylase
AMP requirements, 348, 349, 670, 671
by cyclic AMP, 755, 756
in vivo, 354
by phosphorylase kinase, 755
by phosphorylase kinase kinase, 755
by phosphorylation, 345-49, 354, 355
of glycogen synthesis, 347, 348, 352-55
of glycogen synthetase
active forms, 346-48, 352-54, 756
in vivo, 354, 355
by phosphorylation, 346-48, 352-55, 756
of glycogen synthetase kinase, 348, 355
of glycogen synthetase phosphatase, 348, 353
of histones
and adenosyl ribosylation, 362, 365
and phosphorylation, 364, 365
and hysteretic enzymes, 688, 689
of leucyl-tRNA synthetase, 346, 363, 364
of lipase, 357
of lytic growth
negative, 830-34
N-protein role, 829, 830
positive, 829
mechanisms of, 345, 346, 367
of morphogenesis, 764, 765
negative
cI protein in, 830-33, 836, 837
establishment of, 832, 833
of lytic development, 830
maintainence of, 830-32
release of, 833, 834
of palmityl coenzyme A synthetase, 357
and partial activities, 368
of phosphorylase kinase, 346-48, 350, 354
of phosphorylase phosphatase, 347, 348, 351, 352
by physical modification, 346
positive, 829
of PR-ATP synthetase, 954, 955
protein-nucleic acid interactions in
and dihydrofolate reductase, 951-53
and repressors, 951
protein-protein interactions in
and anthranilate phosphoribosyltransferase, 947, 948
and anthranilate synthetase, 947, 948
and anthranilate synthetase-phosphoribosyltransferase, 947, 948, 950
and arginase, 944, 945
and complex loci, 948-51
and dehydroquinase, 945
and enzyme aggregates, 945-51
and fatty acid synthetase, 944
and pyruvate dehydrogenase, 944
role of, 950
of protein synthesis, 752-54
of PRPP synthetase, 813, 814
of purine metabolism
balance of pathways, 818, 819
de novo, 818, 819
at PRPP amidotransferase, 818
of pyruvate dehydrogenase
cyclic AMP in, 355, 356

nutrition role, 356
by phosphorylation, 346, 355, 356
of pyruvate formate lyase, 346, 362, 363
of RNA polymerase, 360, 729
of steroidogenesis, 754, 760, 761
and subunit interactions, 654, 688
of threonine deaminase, 955, 956
and tRNA
heterogeneity in, 960, 1047
as repressor, 960-63
of xanthine oxidase, 346, 363
Relaxation kinetics
apparatus for
electrical field jump, 318, 319
pressure jump, 318
temperature jump, 318-20
of flavoproteins, 335
of hemeproteins, 335-37
of hydrolytic enzymes, 324-27
of NAD-linked dehydrogenases, 327-35
theoretical aspects
interpretation of spectra, 322-24
resolution of, 323, 324
Renin analysis, 583
Repression
by cI protein, 831-33, 836, 837
of PR-ATP synthetase, 954, 955
release of, 833, 834
Repressors
aminoacyl-tRNA synthetases as, 958-60, 962
dihydrofolate reductase as, 951, 952
histones as, 304, 305
nature of, 964, 965
threonine deaminase as, 956
tRNA as, 960-63
Resistance factors
DNA of, 912-22
Respiratory control, 120, 121, 136
Reticulocytes
protein synthesis in, 423
Retinal oxidase, 503
Retinoic acid
absorption of, 503
and development, 506, 507
and growth, 504, 505
synthesis of, 503
Retinol
absorption of
and ester hydrolysis, 502, 503
pathway of, 503
biosynthesis of, 503, 504
in electron transfer, 511
in membranes, 509, 510
Retinol binding protein, 503
Retinol dehydrogenase, 503
Retinyl ester hydrolase, 502-4
Retinyl ester synthetase, 502
Rhodanese, 665
Rhodomycin, 789
Rho factor
function of, 732, 733
nature of, 733
Rhythmic phenomena
history, 237, 238
and oscillations, 238
Ribosomal RNA
biosynthesis of, 778
in chloroplasts, 190, 191
manganese binding by, 623
synthesis of
psi factor, 731
and Qβ replicase, 731
see also Ribosomes, RNA synthesis
Ribosome dissociating factor
demonstration of, 416
and initiation factors, 416
specificity of, 416
Ribosomes
acceptor site of
nature of, 425
in protein synthesis, 430
affinity chromatography of, 274
in chloroplasts
proteins of, 191
RNA of, 190, 191
conformation of, 701, 705
dissociating factor, 416
dissociation of
factor for, 416
and protein synthesis, 416
donor site of
in eukaryotes, 433
nature of, 425
in protein synthesis, 430, 433
functions of
inhibition of, 702, 704, 707-9
peptide bond formation, 697, 698, 700
and reconstitution, 702
as scaffold, 697, 701
states of, 698-701, 705
genes for, 998
in glycoprotein synthesis
glycosidic linkage, 45, 46
immunoglobulins, 45-47
localization of, 45
M factor from, 729, 730
mitochondrial, 435
nisin in, 457
peptidase in, 400
and polysome formation, 412
in protein synthesis
and messenger RNA binding, 411, 412, 423, 702, 706, 707
protective role, 404
reconstitution of, 702
structure of
and antibody binding, 701
binding sites on, 697, 701
and streptomycin binding, 702
30S subunit of
and antibiotics, 702, 704
inhibitors of, 702, 704
in initiation, 412-15
50S subunit of
and antibiotics, 707-9
inhibitors of, 707-9
in initiation, 412-14
peptidyltransferase in, 428, 429
subunits of
f Met-tRNA binding of, 412-15
functions of, 412
initiation factor binding by, 413
initiation role, 412-15, 420
in protein synthesis, 411-16, 420, 421, 424
tRNA binding of
diagram of, 698, 699
inhibition of, 704, 708
and initiation, 412-15
and mutations, 1057
structures required, 1056, 1057
Ribulose diphosphate carboxylase
activation of, 367
modification of, 365
Ribulose 5-phosphate kinase, 366, 367
Rickets
ATPase in, 525
alkaline phosphatase in, 525, 526

and calcium binding protein, 523, 524
and calcium resorption, 522
and citrate, 521
and collagen synthesis, 521, 522
enyzme levels in, 521
and 25-hydroxycholecalciferol, 516
hydroxylated calciferol effect on, 515
and phosphate absorption, 520
and RNA synthesis, 523
Rifampicin
and RNA polymerase binding by, 716-18, 723, 798, 799
and DNA binding, 799, 800
inhibition of, 716-18, 721-23, 726, 734, 798-800
and RNA synthesis inhibition of, 798-800
in mitochondria, 798
in λ RNA synthesis, 839
structure of, 797
Rifamycin
and RNA polymerase, 798-800
and RNA synthesis inhibition of, 798-800
in mitochondria, 798
structure of, 797, 798
RNA
biosynthesis of
see RNA polymerase, RNA synthesis
in chloroplasts, 190, 191
chromosomal, 305
see also Messenger RNA, Ribosomal RNA, RNA synthesis, Transfer RNA
RNase
2'-CMP binding by, 609, 620
denaturation of, 618
exposure calculations of, 1015
fluorescence of, 96, 97, 100
forms of, 326
mechanism of, 325, 326
nuclear magnetic resonance of, 615-18, 620, 628
polymers of, 673
relaxation studies of, 325, 326
in RNA polymerase preparations, 713
and RNA salvage, 820
S-peptide synthesis, 1017, 1018
and spin labeling, 628
RNase S
affinity chromatography of, 266, 272
nuclear magnetic resonance of, 616
S-peptide synthesis, 1017, 1018
RNase T_1, 96, 98
RNA polymerase
active sites of
and chemical modification, 718
and nucleoside triphosphates, 718, 719
and pyrophosphate exchange, 719
adenylylation of, 360
amino acid composition of, 720
assay of
factors of, 713, 714
and purity, 713
bacteriophage induced
λ, 734
Qβ, 731
T4, 733, 734
T7, 734
bacteriophage T7 specific, 726
and catabolite gene-activating protein, 730, 731
circular dichroism of, 722
components of
α, 712, 714, 715, 723
β, 712, 714-17, 723, 724
β', 712, 714, 715, 717, 723, 724, 726
core, 712, 714, 715, 719, 720
ω, 714, 716
σ, 712, 714, 715, 723-29
conformational changes in
DNA binding, 720, 721
and rifampicin sensitivity, 721
and RNA synthesis, 721
and temperature, 722
crystallization of, 715, 716
DNA binding by
and conformation, 720, 721
and rifampicin, 799
sigma role in, 717, 724-29
sites of, 717, 718
subunit involvement, 717, 718
dissociation of, 645
and elongation
and active site, 718, 719
reversal of, 719
fluorescence quenching of, 718
gel filtration of, 714, 715
genetics of
and antibiotic resistance, 722, 723
linkage of subunits, 723, 724
mapping of, 722, 723
mutants of, 722, 723
α-helix in, 722
and histone acetylation, 291
and histones, 305-7
immunology of, 715
inhibition of
by actinomycin, 778, 783, 788
by α-amantin, 801
by chromomycin, 787, 788
by hedamycin, 792
by kanchanomycin, 804
by luteoskyrin, 802, 803
by mithramycin, 787
by nogalamycin, 790
by olivomycin, 787, 788
by rifampicin, 716-18, 798-800
by rifamycin, 798-800
and initiation
assay, effect on, 714
pyrimidine clusters, effect of, 728, 729
and sigma factors, 712, 724-29
site of, 718, 719, 725, 726
steps in, 727
and M factor, 729, 730
molecular weight of, 719, 720
optical rotatory dispersion of, 722
physical properties of, 719, 720
polyacrylamide gel electrophoresis of, 713, 714, 716
and psi factor, 731, 732
purification of, 712, 713, 724
purity of, 713
reconstitution of, 715
rho factor of, 732, 733
role of, 711, 712
sedimentation of, 719, 720
sigma factor of
and bacteriophage infection, 733, 734
dissociation of, 716, 724, 725
and DNA binding, 725-29
function of, 716, 724-29

and initiation, 712, 714, 722, 724-29
nature of, 725
and nonspecific complexes, 726-28
and nucleoside triphosphate binding, 725-27
phage specific, 728
and purity, 713
and pyrimidine clusters, 728, 729
regulation of, 729
specificity of, 724-29
and sporulation, 405
subunits of
α, 712, 714, 715, 723
arrangement of, 715, 716
β, 712, 714-17, 723, 724
β', 712, 714, 715, 717, 723, 724, 726
in core, 712, 714, 715
definition of, 712
dissociation of, 714, 715
and DNA binding, 717, 718
functions of, 675, 716-19
genetic linkage of, 723, 724
heparin binding, 717
immunology of, 715
molecular weight of, 715
ω, 714
reconstitution of, 715
and rifampicin, 716-18, 799
σ, 712, 714, 715, 723-29
and streptolydigin, 717
and streptovaricin, 716
succinylation of, 714
and termination
assay, effect on, 714
rho factor effect, 732, 733
specificity of, 732, 733
X-ray crystallography of, 716
RNA synthesis
actinomycin effect, 777-79, 783, 784
anthramycin effect, 797, 798
in bacteriophage λ, 831-33
in chloroplasts, 798
and chromomycin, 787, 788
control of, 735
and corticosteroids, 307, 308
cortisol effect, 292
cI protein role, 831, 833, 838-40
cyclic AMP effect, 752, 753
and daunomycin, 790, 791
and hedamycin, 792
and histone acetylation, 291, 292
and histone phosphorylation, 294, 296
histones, effect on, 303-6
inhibition of
by actinomycin, 777-79, 783, 784
by α-amantin, 801
by anthramycin, 797, 798
by chromomycin, 787, 788
by daunomycin, 790, 791
by hedamycin, 792
by kanchanomycin, 803, 804
by luteoskyrin, 801-3
by mithramycin, 787, 788
by mitomycin, 793
by nogalamycin, 790
by olivomycin, 787, 788
by phleomycin, 796
by pluramycin, 792
by rifampicin, 716, 717, 798-800, 839
by rifamycin, 798
and RNA virus growth, 800
by streptolydigin, 798, 800
by streptovaricin, 716, 798
initiation of
and rifampicin, 799
site specific, 839
phytohemagglutinin effect, 292
positive control of, 732
and protamines, 305
ribosomal, 731, 732, 778
and rickets, 523
RNA polymerase role, 711, 712, 716-22, 724-29
Rotenone
and electron transport paths, 121
and NADH dehydrogenase, 122, 123
and respiration inhibition, 117
Rous sarcoma virus, 868
Rubidium analysis, 579
Rubidomycin
see Daunomycin
Rubiflavin, 791, 792
Ruticulomycins, 789

S

Salmonella typhimurium
anthranilate synthetase of, 947
O-antigens of, 30, 31, 35
T1 antigens of, 31
cell wall of, 30-33, 35-39
chromosome of, 909
galactosylitransferase of, 36, 37
histidine synthesis in
and PR-ATP synthetase, 954, 955
and tRNA acceptor activity, 960, 961
lipopolysaccharide of
inner core of, 32, 33
outer core of, 30, 31
phospholipid-protein complex, 36, 37
structure of, 30-33
threonine deaminase of, 955-57
Saramycetin, 450
Sarcoplasmic reticulum, 351
Sarcosine biosynthesis, 457
Secretin, 744, 745
Semiochemicals
definitions of, 533
see also Pheromones
Serine dehydratase
formation of, 753
inactivation of, 367
Serotonin
and adenyl cyclase, 743
metabolism of, 476, 477
visualization of, 466
Serratia marcescens, 459, 460
Serum albumins
energy transfer in, 98, 100, 102, 104-6, 108
fluorescence of, 98, 100, 104-6, 108
iodination of, 100
nuclear magnetic resonance of, 625, 626
penicillin binding of, 625, 626
sulfonamide binding of, 625, 626
Shope fibroma virus, 867
Sialoglycoproteins
in cell envelope, 47
neuraminidase action on, 47
Sigma factor
dissociation of, 716, 724, 725
and DNA binding
nonspecific, 726, 727
specificity of, 725-29
stability of, 726, 727

and initiation of RNA synthesis
effect on, 712, 724, 725
and enzyme-DNA stability, 726, 727
function in, 727-29
and pyrimidine clusters, 728, 729
release, 725
specificity, 725, 726
nature of, 725
phage specific, 728
phosphorylation of, 729
purity of, 713
regulation of, 729
release of, 725
see also RNA polymerase
Sindibis virus
glycoproteins of, 51, 52
membrane of, 51
Sodium transport, 763
Sparsomycin
and protein synthesis, 422, 427, 437, 703, 705-8
Spectinomycin, 703-7
Sphinganine
biosynthesis of, 66, 67
degradation of, 67, 68
Sphingolipids
analysis of
glycosidases in, 59
quantitation, 58
separation, 57-59
structures of
bases of, 60-62
in brain, 61
in milk, 60, 61
synthesis of
biosynthesis, 66, 67
chemical, 65, 66
Sphingomyelin
analysis of, 59, 60
biosynthesis of, 67-69
degradation of, 71
structures of
bases of, 60, 61
in kidney, 61
in milk, 60
in plasma, 61
Spin labels
definition of, 227
heme as
and hemoglobin oxygenation, 234
structure of, 233
iodoacetamides as
factors affecting, 231
in hemoglobin mutants, 230, 231
and hemoglobin oxygenation, 229-31
structure of, 229
nitroxide, 1053
and nuclear magnetic resonance, 628, 629
paramagnetic resonance of, 227-29
and protein structure, 228, 229
significance of, 235
triphosphate as
binding of, 232
and ligand binding, 232, 233
Sporidesmolides, 450, 459
Squalene cyclodehydrase, 507
Staphylococcal nuclease
active site of, 620, 621, 1033, 1034
activity of
and active site, 1033, 1034
and structure, 1033-35
in affinity chromatography
and inhibitor coupling, 263
modified, 269, 270
nuclease T, 272
purification, 265, 269, 270
antibodies to, 273
denaturation of, 618
fluorescence of, 339
fragmentation of, 1018
modified, 269, 270
nuclear magnetic resonance of
and chemical modification, 616
and denaturation, 618
and deuteration, 615
and histidine, 615, 616, 618, 620
nuclease T formation, 272
properties of, 1032
structure of
and activity, 1033-35
helix in, 1033
motility of, 1033
β-structure in, 1033
synthetic analogs, 1034, 1035
tyrosine in, 1035
by X-ray diffraction, 1032, 1033, 1035
X-ray crystallography of, 682, 683
see also Nuclease T
Starch synthetase, 264
Steroidogenesis
ACTH role, 754, 760, 761
and cyclic AMP, 754, 760, 761
and glycogen phosphorylase, 760
hormone effect on, 754, 760, 761
Streptococcus lactis, 456, 457
Streptogramins
and protein synthesis, 701, 703, 705-9
Streptolydigin
and RNA polymerase, 717, 722, 734, 800
Streptomyces antibioticus, 458
Streptomycin, 702, 703, 705-7
Streptonigrin
action of, 794
and DNA scission, 796
and DNA synthesis, 794, 795
structure of, 794
Streptovaricin
rifamycins, 798
and RNA polymerase, 716, 722
Strontium analysis, 579
Submaxillary mucins
biosynthesis of
glycosidic linkage of, 43
transferases in, 43
structure of, 42
Substance Q
and chloroplast fluorescence, 217-19
components of, 218
redox potential of, 218, 219
Subtilisin, 1019
Succinate-cytochrome c reductase, 125
Succinate oxidase, 126
Succinic dehydrogenase
localization of, 120, 386, 390
ubiquinone effect on, 124
Succinylation, 714
Sulfatase analysis, 581
Sulfate transferase, 507
Sulfatides
biosynthesis of, 68, 69
structure of, 62
Sulfonamides, 625, 626
SV40 virus
cell transformation by, 49-51
DNA of
buoyant density of, 903
circular, 902, 903, 914
integration of, 919, 920
thermal denaturation, 902, 903
transformation by, 915
Systemic lupus erythematosus, 298

T

Tay-Sachs disease
enzymic lesion of, 73

ganglioside of, 62
TDP-glucose oxidoreductase, 675
Terminal deoxynucleotidyl-transferase
origin of, 869
products of, 869
properties of, 868, 869
Testosterone
and adenyl cyclase, 744
analysis of, 583
Tetracyclines, 703-7
Theophylline, 763
Thermogenesis
and ATP levels, 146, 147
brown adipose tissue role, 145
mechanism of, 145
and oxidative phosphorylation, 145, 146
and uncoupling agents, 146, 147
Thiamine pyrophosphatase, 383, 390
Thioredoxin reductase, 335
Thiostrepton
and protein synthesis, 701, 703, 705-7, 709
Threonine deaminase
association of, 662, 665
hysteretic effects in, 687, 688
pridoxal phosphate binding of, 675
regulation of
forms of, 955, 956
nature of, 943, 944, 957
as a repressor, 956
tRNA binding of, 956, 957
Threonine dehydrase, 658
Thylakoid membrane
assembly of
and greening, 180-84
growing points, 184, 185
insertion, 185
and lipid synthesis, 186
and photosystem II development, 181
proteins of, 185, 186
simultaneous, 181
stepwise, 181-84
time course of, 180-84
in photosynthesis
and NADP photoreduction, 180, 183
and substructure, 178-80
structure of
appearance, 162-65
carotenoid in, 176
chlorophyll in, 174-78
digitonin effect on, 178
by electronmicroscopy, 161-68, 171-74
freeze fractures in, 163, 164
layers of, 168-71, 175
models of, 163, 165, 168, 171-74
in mutants, 192
particles in, 164-66, 171, 172
and partition, 166, 167
proteins of, 192
substructure in, 162-74
surface of, 166, 167, 171
thickness of, 172, 173
by X-ray diffraction, 168-74
see also Chloroplasts, Photosynthesis
Thymidine kinase, 249
Thyroglobulin
affinity chromatography of, 270
association of, 659
fluorescence of, 100
Thyroid stimulating hormone, 744, 745
Thyroxine
analysis of, 583
and cyclic GMP, 751
and energy transfer, 99, 100
Thyroxine-binding globulin, 270, 271
Tobacco mosaic virus, 101
α-Tocopherolquinone, 217
TPN
see NADP
Transaminases
analysis of, 581, 593
and oxaloacetate translocation, 118
Transcarbamylase, 338
Transcription
and cyclic AMP, 752, 753
mechanism of
initiation of, 712, 714
and RNA polymerase, 712
termination, 714
and transcription factors, 712
rate of, 713
steps in, 711
and vitamin A, 511
and vitamin D, 523
see also RNA polymerase, RNA synthesis
Transferrin, 109, 110
Transfer RNA
aggregation of, 1051
aminoacyl
preparation of, 1055
as substrate, 1062
and aminoacyl-tRNA synthetases
complex formation, 1060
and conformation, 1060, 1061
enzyme characterization, 1057, 1058
heterologous, 1059, 1060
inhibitors of, 1060, 1061
and regulation, 1061, 1062
specificity, 1058-61
biosynthesis of, 1064
chemical modification of
with acrylonitrile, 1054
by carbodiimide, 1054
by methylation, 1054
minor nucleosides of, 1055
by nitrous acid, 1054
sites of, 1053-55
in chloroplasts, 190, 191
conformation of
asymmetry, 1052
and chemical modification, 1053-55
and circular dichroism, 1053
and fluorescence, 1051, 1052
nuclear magnetic resonance studies, 1053
and ribosome binding, 1056, 1057
and thermal denaturation, 1053
cytokinin in, 1049
electronmicroscopy of, 1064
enzymatic cleavage of, 1056
and ethidium bromide, 1052
ethylation of, 1051
5-fluorouracil containing, 1055, 1056
formylmethionyl, 411-15, 420, 421, 434, 435, 698, 706, 707, 1047
fractionation of
chromatographic, 1046
single species of, 1046, 1047
from tumor tissues, 1047, 1048
virus induced, 1048
genes for
chemical synthesis, 869
multiple copies of, 998
infrared spectroscopy of, 1052
isolation of, 1046
manganese binding by, 623

methionyl
and chain initiation, 411-15, 420-23
codons recognized, 411, 422
distribution of, 1047
in eukaryotes, 420, 421
formylation of, 411, 412, 420, 421, 1047
in peptide transfer, 425, 428
in prokaryotes, 411-15
ribosome binding of, 412-15
sequences of, 411
species of, 411
X-ray crystallography of, 411
methylation of
chemical, 1054
in vitro, 1050
methylases involved, 1050, 1051
role of, 1051
in tumor tissues, 1051
minor bases in
and fluorescence, 1051, 1052
nature of, 1049
in mitochondria, 1047
models of, 1063, 1064
nuclear magnetic resonance of, 611, 623, 1053
nucleotide sequences in
determination of, 1048, 1049
methylated, 1050, 1051
minor nucleosides in, 1049, 1050
peptidyl
preparation of, 1055
ribosome binding of, 412
PR-ATP synthetase binding, 955
purification of, 272
radiation effect, 1052, 1053
reconstitution of, 1056
and regulation, 1047
as repressor, 960-63
ribosome binding of
structures required, 1056, 1057
spin labeling of, 1053
structure of
and crystallization, 1062, 1063
models of, 1063, 1064
and X-ray crystallography, 1062, 1063
suppressor, 436, 1057
and terminal pyrophosphorylase, 1062
terminator, 436
thermal denaturation of, 1053
threonine deaminase binding by, 956, 957
virus induced, 1048
see also Protein synthesis
Transient kinetics
of flavoproteins, 335
of hemeproteins, 335-37
of hydrolytic enzymes, 324-27
interpretation of
from enzyme intermediates, 320-22
model in, 321, 322
from reactants, 320, 321
and relaxations, 320
of NAD-linked dehydrogenases, 327-35
Translocase, 346, 361, 362
Transport
of acetylcholinesterase, 486
of calcium, 135, 137, 138, 513-19, 763, 764
cyclic AMP effect, 762-64
of immunoglobulins, 46
mechanisms of, 398, 399
and neurotubules, 486, 487
of noradrenalin, 480, 481, 486, 487
of peptides
demonstration of, 398, 399
function of, 398
peptidase role, 399
permease role, 397, 398
specificity of, 398, 399
of potassium, 243, 244, 763
of sodium, 763
of vitamin A, 503
Trimethoprim, 412
Triosephosphate dehydrogenase, 367
Triosephosphate isomerase
mechanism of, 339, 340
in multienzyme complex, 672
Triostins, 461
Triphosphoinositide, 638
Trypsin
affinity chromatography of, 264
glass coupled, 262
mechanism of, 324
Trypsinogen, 1028
Tryptophan
biosynthesis of
and anthranilate synthetase-phosphoribosyltransferase, 947, 948
arom region in, 948, 950
repression of, 953, 954
and tryptophan synthetase, 945, 947, 950
chemical modification of, 639
and energy transfer, 96-100
in RNA polymerase, 720
Tryptophanase
association of
polymerization, 665
and pyridoxal phosphate, 662
synthesis of, 753
Tryptophan oxygenase, 675
Tryptophan pyrrolase, 366
Tryptophan synthetase
association of
polymerization, 665
and pyridoxal phosphate, 662, 678
in complex, 947, 950
formation of, 953
and indole, 947
as multienzyme complex, 671, 947, 950
reactions of, 945, 947
Tryptophanyl-tRNA synthetase, 674
Tyrocidines
association of, 450
biosynthesis of
cell-free, 453
components of, 454, 455
structure of, 450
Tyrosinase
affinity chromatography of, 265
association of, 665
in melanosomes, 390
Tyrosine
and energy transfer, 96-99
in RNA polymerase, 720
Tyrosine aminotransferase
in affinity chromatography, 263, 269, 274
regulation of, 366
Tyrosine hydroxylase
assay of, 470
inhibition of, 470, 488
localization of, 469
mechanism of, 469
reaction of, 467-69, 479
regulation of, 488-90
Tyrosine transaminase
formation of, 753, 761
regulation of, 492

U

Ubiquinone

electron paramagnetic resonance of, 124
in electron transport, 124
and NADH oxidation, 124
and succinic dehydrogenase, 124
UDP-galactose epimerase, 675
Urea analysis, 583
Uric acid
analysis of, 583
excretion of, 814, 815
and nutrition, 820
Urocanase, 675

V

Vaccinia virus, 878
Valinomycin
and ion transport, 135, 136, 243, 244
and membrane potentials, 142, 247
nuclear magnetic resonance of, 612, 613
and oxidative phosphorylation, 135
Vanilmandelic acid, 475, 476
Vasopressin
and cyclic AMP synthesis, 745, 763
and membrane permeability, 762, 763
Veratridine, 743, 746
Vernamycin B, 450
Vesicular stomatitis virus, 52
Vinblastine, 643, 644
Vitamin A
absorbtion of
and ester hydrolysis, 502, 503
form of, 503
pathway of, 503
analysis of, 583
biosynthesis of, 503, 504
and β-carotene, 503
as coenzyme
and hydroxysteroid dehydrogenase, 507
and sulfation, 507, 508
and electron transport, 511, 512
and hydroxysteroid dehydrogenase, 505, 506, 507
and membrane action
in artificial membranes, 509
fusion, 510
in hypervitaminosis, 509
lysosomal enzyme release, 508-10
physiological actions of
as coenzyme, 507, 508
in development, 506, 507
and electron transport, 511, 512
in growth, 504, 505
mechanism of, 507-12
and membrane action, 508-10
and protein synthesis, 510, 511
in reproduction, 505, 506
in taste, 504
in vision, 504
and protein synthesis
in deficiency, 510, 511
and transcription, 511
in reproduction
deficiency of, 505
and progesterone, 505
and steroid hormone synthesis, 505, 506
in sulfation, 507, 508
transport of, 503
Vitamin B_{12}
assay of, 583, 591
as nutrient, 556
Vitamin C analysis, 583
Vitamin D
absorption of, 513
biochemical effects of
calcium binding protein, 523-25
on transcription, 523
and calcium absorption
adaptation in, 519
and ATPase, 525
and calcium binding protein, 523-25
control of, 519
cyclic AMP effect, 519
in vitro, 518, 519
and nephrectomy, 519
and protein synthesis, 523
saturation in, 518, 519
strontium effect, 525
and calcium binding protein
binding sites of, 523, 524
and calcium absorption, 524, 525
distribution of, 524
localization of, 524
strontium effect, 525
surfactant effect, 524
and calcium transport, 764
elimination of, 514
esters of, 513, 514
and 25-hydroxycholecalciferol, 516
and hydroxylated calciferols
and calcium transport, 515
hydroxylation site, 516
identification of, 515
potency of, 515, 516
in kidney
and calcium reabsorption, 522
and phosphate reabsorption, 522
local active form of, 517
localization of, 517
metabolism of
absorption, 513
elimination, 514
esters of, 513, 514
and 25-hydroxycholecalciferol, 516, 517
and hydroxylated calciferols, 514-16
local active forms, 517
localization of, 517
nuclear interaction of, 523
as nutrient, 556
and phosphate absorption, 520
physiological effects of
calcium absorption, 517-20, 523
and collagen synthesis, 521, 522
in kidney, 522
phosphate absorption, 520
skeletal, 520-22
radioactive, 512, 513
separation of, 513
skeletal effects of
calcium concentration, 522
in collagen synthesis, 521, 522
enzymes in, 520, 521
parathyroid hormone-like, 520
storage form of, 514
sulfate of, 514
and transcription, 523
Vitamin E analysis, 583
Vitamin K, 556

W

Wax test, 1082

X

Xanthine oxidase
analysis of, 581
in blood, 821
mechanism of, 335
regulation of, 346, 363, 812
and xanthine pool size, 815
Xenopus laevis, 728
X-ray diffraction

of actinomycin-DNA complex, 780, 786
of alcohol dehydrogenase, 328
of carboxypeptidase, 682
of chymotrypsin, 682, 683, 1026
of chymotrypsinogen, 682, 683, 1026
of cytochrome c, 1029, 1030
of elastase, 683
and exposure calculations, 1015
of formylmethionyl-tRNA, 411
of hemoglobin, 228, 335, 336, 682, 1023-25
of hemoglobin derivatives, 230
of histones, 302
of insulin, 20
of lactic dehydrogenase, 683, 684, 1035, 1036
and ligand binding, 1017, 1022
of lysozyme, 326
of multisubunit enzymes, 683
of papain, 266
and protonation, 1017
of RNA polymerase, 716
of staphylococcal nuclease, 683, 1032, 1033, 1035
of thylakoids, 168-74
of tRNA, 1062, 1063
Xylose analysis, 583

Y

Yeast
chitin in, 40, 41
invertase of, 40
mannans of, 39, 40

Z

Zein, 96, 97
Zinc
and alcohol dehydrogenase, 329
analysis of, 578, 579, 593
as nutrient, 556, 561-63, 565, 567